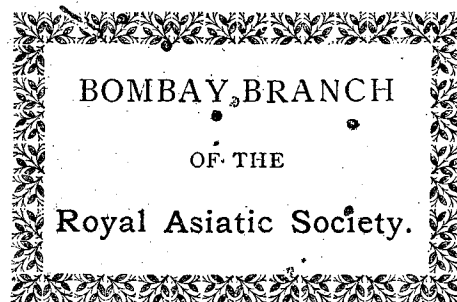




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EAST INDIA (PROGRESS AND CONDITION),

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

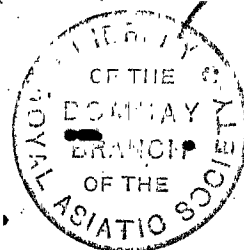
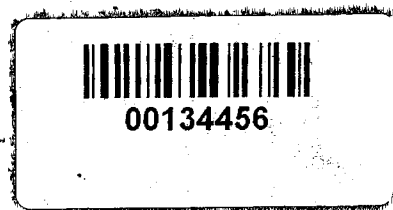
INDIA

DURING THE YEAR 1887-88.

134456

TWENTY-FOURTH NUMBER.

(PRESENTED PURSUANT TO ACT OF PARLIAMENT.)



Ordered, by The House of Commons, to be Printed,

16 August 1889.

LONDON:

PRINTED BY HENRY HANSARD AND SON

AND

Published by EYRE and SPOTTISWOODE, East Harding-street, London, E.C.,
and 32, Abingdon-street, Westminster, S.W.:

ADAM and CHARLES BLACK, North Bridge, Edinburgh;
and HODGES, FIGGIS, and Co., 104, Grafton-street, Dublin.

TABLE OF CONTENTS.

	PAGE		PAGE
I. SUMMARY	3	X. AGRICULTURE AND MINERAL RESOURCES:	
II. ADMINISTRATION AND LEGISLATION:		Agriculture	109
Administration	24	Crop Forecasts	113
Legislation	25	Wheat	113
III. MUNICIPALITIES, LOCAL GOVERNMENT, AND SANITATION:		Cotton	114
Municipalities and Local Boards	27	Sugar	114
Sanitation	33	Tea	115
IV. CRIME, POLICE, JAILS, AND JUSTICE:		Coffee	115
Crime and Police	36	Chinchona	116
Criminal Justice	41	Agricultural Department	116
Jails	45	Mineral Resources	117
Civil Justice	50	XI. PUBLIC WORKS:	
V. REGISTRATION:		Public Works	119
Registration	54	Railways	120
Joint Stock Companies	56	Guaranteed Railways	122
VI. FINANCE:		Irrigation	123
Finance	57	Buildings and Roads	130
Capital Outlay on Public Works	67	Military Works	131
Debt	67	Civil Works	132
Savings Banks and other Deposits	68	XII. POST OFFICE AND TELEGRAPHS:	
Cash Balances	68	Post Office	141
Coinage and Paper Currency	68	Telegraphs	143
Opium	69	Indo-European Telegraph Department	144
Salt	72	XIII. EDUCATION AND LITERATURE:	
Stamps	76	Education	146
Excise	77	Literature and the Press	152
Customs	88	XIV. EMIGRATION AND MIGRATION:	
Provincial Rates	88	Emigration	154
Income Tax	89	Migration	155
II. SURVEYS AND SETTLEMENTS	91	XV. TRADE AND MANUFACTURES:	
III. LAND REVENUE (INCLUDING FISHERIES, CAPITATION TAX, &c.) AND GOVERNMENT AND WARDS' ESTATES:		Trade for 1887-88	158
Land Revenue	96	Trade for 1888-89	159
Government and Wards' Estates	101	Manufactures	159
IV. FORESTS	104	XVI. NATIVE STATES AND FRONTIER RELATIONS, ARMY, AND MILITARY OPERATIONS:	
		Native States	163
		Frontier Relations	181
		Army	184
		Military Operations	186
		XVII. AFFAIRS IN UPPER BURMA	187

India Office, }
13 August 1889. }

J. A. Godley,
Under Secretary of State for India.

SUMMARY.

[The denomination Rx. which is used throughout this Statement means tens of rupees.]

THE five Councils for making laws sat, as usual, for a part of the year. The important enactments of the year were two Acts which revised the Tenancy and Revenue Laws of the Punjab; Acts for the amendment of the Patents Law, relating to imprisonment for debt, settling the constitution of the Indian reserve forces; a new Municipal Act for Calcutta; and regulations made by the Governor General concerning affairs in Upper Burma. The other laws enacted during the year were for the consolidation or amendment of existing Acts, or concerned matters of local or temporary interest.

There was no material change in the numbers or constitution of the regular police, except that the strength of the military police was increased in Upper Burma. The total strength of the police force, at the end of the year 1886, was 384 superior officers, 16,615 subordinate officers, and 126,648 constables, of whom 2,795 were mounted. These constitute the regular police; they do not include the police of Upper Burma, numbering 17,000 men, or the village watchmen, of whom there may be over 500,000 in all. Of the regular force, 55,000, besides the men in Upper Burma, carry fire-arms, the rest having either swords or batons. The police of each district are commanded and directed by one or more superior officers, who have no magisterial power or duties; the military police in Upper Burma have a stronger staff of officers, European and Native; all the police are, subject to certain limitations, under the orders of the magistracy. About 38,000 officers and men, or nearly one-third of the Indian force, were employed in guarding or escorting prisoners and treasure. The total cost of the regular police during the year was Rx. 2,417,976, as against Rx. 2,393,863 in the previous year, besides Rx. 709,209 spent on the police of Upper Burma. In Upper Burma the military police did excellent work; elsewhere the police did fairly well, though there is still much room for improvement in the detection of serious crime.

There was a considerable increase over previous years in the graver kinds of crime, namely, murder, other serious offences against the person, dacoity or gang robbery, cattle theft, and housebreaking. The chief increase in dacoities occurred in Lower Burma, where the disturbances following on the war were still felt. The increase of cattle theft occurred mainly in the North Western Provinces and Burma. The extent to which the police failed in dealing with crime may be seen from the following figures, which represent the "totals" for British India under the respective heads—

For the Year 1887.	Murder.	Other Serious Offences against the Person.	Dacoity.	Cattle Theft.	House-breaking.
Number of cases reported	2,155	25,899	2,308	27,827	108,462
Number of cases in which conviction was obtained.	750	10,548	463	6,562	12,292

These figures do not include statistics for Upper Burma.

The preventive provisions of the criminal law, under which persons of evil repute and without honest means of livelihood can be called upon to

STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY.

ADMINISTRATION OF JUSTICE.

to give security, or imprisoned in default, were successfully put in operation against 9,201 persons, of whom 6,749 belonged to the Punjab and Burma. On the superior courts, which exercise both appellate and original jurisdiction, sit 450 judges. The total number of magistrates exercising jurisdiction in India during 1886 was about 5,500, of whom one-half were honorary magistrates. There were 1,697 civil judges under the superior courts. These figures do not include the village officers, who in Southern India exercise petty magisterial and civil jurisdiction; but in some provinces the same officers exercise both criminal and civil jurisdiction, and in such cases are shown twice over. Nearly all the civil judges, and the great majority of the magistrates in the courts of original jurisdiction, are natives of India. The proportion of natives of India sitting in the appellate courts continues to increase; it is now considerable in the older and more advanced provinces such as Bengal, Madras, and Bombay. There was no considerable change in the judicial staff during the year; but the number of honorary magistrates was increased in some provinces. The number of persons coming before the magistrates during the year 1887 was 1,376,976, or about the same as in 1886; 49 per cent. of these persons were convicted. Of the convicted persons, 119,508 (or 10,000 more than in the previous year) appealed; and of these, 19,014 persons procured a reversal of their sentences. There were 349 capital sentences passed; 2,027 sentences of transportation, 156,798 of imprisonment, 501,305 of fine, and 15,259 of whipping. Of the total fines, Rx. 255,423, or 81 per cent. of the whole, were realised; and only 11 per cent. of the fines were over 10 rupees. Out of the sentences to imprisonment, 71 per cent. were for terms under six months. The total number of civil suits coming before the courts were 1,976,725, involving claims valued at Rx. 20,068,368. Out of all the suits, 64 per cent. were either withdrawn or settled without contest; about 25 per cent. were contested; and of the contested suits, 69 per cent. went in favour of the plaintiff, and 31 per cent. in favour of the defendant. In only 8,504 suits did the parties consent to have their disputes settled by arbitration.

Besides the convict settlement at the Andamans, which contained in 1887 an average of 11,961 transported prisoners, there were in British India 33 central gaols, 194 district gaols, and 524 subsidiary gaols, which contained an average of 70,879 prisoners, or 5,099 less than in 1886. The decrease was due mainly to the release of 22,918 prisoners on the occasion of the Jubilee of Her Majesty's accession, in February 1887. The number of women prisoners has been decreasing steadily for nine years, and was 2,906 at the end of 1887. The death-rate among convicts in prison was somewhat higher than the previous year. The death-rate for all India among convicts has been:—

In 1880	- -	55 per mille.	In 1884	- -	32 per mille.
„ 1881	- -	44 „	„ 1885	- -	37
„ 1882	- -	41 „	„ 1886	- -	34
„ 1883	- -	34 „	„ 1887	- -	36

A great diminution of the death-rates occurred in Bengal and Assam, which in recent years had shown high rates of mortality. In the Punjab only was there a serious increase in the death-rate; but there were small increases in Berar, Madras, and the Central Provinces. The number of offences or breaches of rule committed by prisoners was 78,398, or 5,686 more than in 1886; and the number of cases in which the punishment of whipping was inflicted for such offences was 2,427, or about one-ninth of the number awarded in Indian gaols ten years ago. The system of awarding marks for good conduct and good work continues to be successful; though the number of convicts earning remission declined from 9,914 to 7,696, by reason of the many Jubilee releases of old convicts. The average number of prisoners employed on unremunerative labour was reduced during the year from 1,985 to 1,271; the cash profit on gaol manufactures was Rx. 101,189, as compared with Rx. 115,121 in the year 1886. The average net cost of each prisoner, after deducting these profits, was Rs. 50½ a year, as compared with Rs. 47½ in 1886;

PROGRESS AND CONDITION OF INDIA, 1887-88

1886; the increase was, due partly to the reduction in the daily average of prisoners, and partly to an advance on the price of food and rations. SUMMARY.

The Registration Law requires the registration of all documents affecting immoveable property valued at Rx. 10 or upwards, and permits the registration of other documents. Copies are kept in public offices of all registered deeds; and small fees are charged for registration and search. REGISTRATION.
The number of registration offices open in British India at the end of the year was 1,901, or 14 more than in the previous year; the total number of documents registered was 1,846,145, an advance of 5 per cent. during the year. In about half the cases registration was optional. The number of registrations has increased year by year for a considerable period; and the advance in optional registrations has been specially rapid. The total receipts from registration fees were Rx. 316,000, and the cost of maintaining registry offices was Rx. 192,000, the same figure as the preceding year.

The number of new joint stock companies registered during the year was 125, with a nominal capital of Rx. 1,950,000. At the end of the year the number of registered companies in operation was 910, with a nominal capital of Rx. 30,250,000, and a paid-up capital of Rx. 22,330,000, or about a million above the total of the previous year.

The financial results of the Indian Treasury during the year 1887 SS. compared with the two previous years; stood thus:— FINANCE.

	1885-86.	1886-87.	1887-88.
	Rx.	Rx.	Rx.
Total receipts - - - -	74,464,000	77,337,000	78,799,000
Total expenditure - - - -	77,266,000	77,159,000	80,788,000
Surplus - - - -	—	178,000	—
Deficit - - - -	2,802,000	—	2,029,000

Of the increase of Rx. 1,422,000 in the year's receipts, Rx. 279,000 were due to the growth of revenue in Upper Burma, while the remainder was due to the progress of revenue under ordinary heads, especially under land revenue and excise. A further fall in the gold value of silver added Rx. 1,027,000 more to the charges on account of payments in England; an outlay of Rx. 1,091,000 was due to charges connected with the conversion of 49 millions of India 4 per cent. stock into 3½ per cent. stock; the army and defensive works cost Rx. 947,000 more than in the previous year; the railway revenue account was worse by Rs. 934,000; and the cost of the Burma police increased by Rx. 369,000. No surplus was available as a reserve against famine outlay in future years.

Loans amounting to Rx. 5,436,000 were raised in India at 4 per cent.; but no loan was raised in England. The capital outlay of the year on public works was Rx. 9,625,000 on railways and Rx. 627,000 on irrigation works. Of this total, Rx. 2,785,000 were supplied from loans, Rx. 175,000 were debited against the revenue of the year, and Rx. 7,292,000 were spent by guaranteed or subsidised railway companies. The total debt and liabilities of India at the end of the year were:—

Permanent debt in India - - - -	Rx.	98,090,000
Permanent debt in England - - - -	£.	84,140,000
TOTAL Permanent Debt - - - -	Rx. & £.	182,230,000
Add,—Saving banks deposits and other unfunded debt - - - -	Rx.	9,716,000
TOTAL Debts and Liabilities - - - -	Rx. & £.	191,946,000

STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY

The permanent debt may be classified thus:—

	Rx. & £.
On account of railways	- 80,000,000
On account of irrigation works	- 25,910,000
For other purposes	- 76,320,000
TOTAL	- Rx. & £. 182,230,000

The foregoing figures do not include the capital on which guaranteed interest is paid by the Government to railway companies, which capital stood at 73,878,000 l. During the year 1887-88 nearly 49 million sterling of the 4 per cent. stock held in England was converted into 3½ per cent. stock, and in the following year a balance of about 4½ millions was similarly converted, the whole transaction securing a saving of 266,000 l. a year on the interest charge. Since the close of the year a loan of 3,500,000 l. was raised in England at something under 3 per cent. interest. The credit of India in the markets of the world is not deteriorating; in 1885 the lowest price accepted for a 3 per cent. loan of 3½ million sterling was 85 l. 6 s. 6 d., while in 1889 the lowest price accepted for a precisely similar loan was 101 l. 1 s. 5 d.

The value of the silver coined at the two Indian mints during the year was Rx. 10,958,762, or more than double the previous year's coinage; the amount of currency notes in circulation at the end of the year 1887-88 was Rx. 16,424,380, and on the 31st March 1889 the circulation had fallen to Rx. 15,737,813; against the note circulation were held Government securities to the value of six millions, besides silver coin and bullion to the value of Rx. 10,425,377.

SURVEYS.

Triangulation for survey purposes was completed over the whole of India some years ago. On the groundwork thus furnished have been based the topographical and revenue surveys directed by the Surveyor General of India, and the revenue surveys of Madras and Bombay. Good geographical material has now been obtained, and maps have been issued for nearly the whole of India. The tracts still to be surveyed consist of the greater part of Burma, a small area in the south and in the north of Madras, and a part of Baluchistan. In 1887-88 surveys were in progress, mainly for geographical purposes, in Baluchistan, Southern Madras, and in Canara. Important topographical information was obtained by survey officers attached to expeditions and working in Upper Burma, who mapped 21,000 square miles of hitherto unknown country. Of regular topographical survey 15,673 square miles were accomplished. The strength and cost of the topographical parties has been reduced by one-half during the past two years; and the main strength of the Survey Department is being concentrated on cadastral work connected with the resettlement of the land revenue. Except in parts of Madras and Burma, where the regular cadastral survey has not yet reached, the work of the professional survey parties is being more and more confined to traverse work, which serves as a basis for, and check upon, cadastral surveys and remeasurement, the detailed work is effected by the village staff, and costs about one-third of a regular professional re-survey. In districts belonging to every province in the empire, except Oudh, professional parties were at work preparing or correcting cadastral maps and information on which settlements or resettlements of the land revenue were to be based. The Marine Survey carried on observations at seven points of the Indian coasts and islands, besides taking deep-sea soundings. The Geological Survey examined and reported on the auriferous rocks of South India; the supposed diamond field in Anantapur, near Bellary; the coal-fields of the Nizam's territory; the coal sources near Rajmehal, of Chota-Nagpore, and of part of Upper Burma; the petroleum sources of Khatun in Baluchistan, of Makum in Assam, and of Yenangyoung in Upper Burma; and the ruby mines and tin mines of Burma.

LAND REVENUE.

The total land revenue collections of India were 23,792,000 l., as compared with 23,653,000 l. in the previous year. About two-thirds of the increase accrued in Upper Burma, where revenue administration is becoming consolidated.

The

PROGRESS AND CONDITION OF INDIA, 1887-1

The total includes Rx. 1,219,000 of receipts from Upper Burma revenues, capitation tax, fisheries, and miscellaneous sources, and Rx. 22,572,000 of land revenue proper, of which there is paid by—

	Rx.
Permanently settled estates -	4,311,000
temporarily settled estates—	
held by proprietary brotherhoods or large proprietors -	10,429,000
held by petty proprietors on what is called ryotwaree tenure	7,841,000
TOTAL - - Rx.	22,572,000

The land revenue on permanently settled estates was fixed nearly 100 years ago in perpetuity; so no appreciable increase in the public income takes place under that head. Since the revenue was settled there has been a great increase in the area of cultivation, and in the value of the produce. At the present time the land revenue demand on permanently settled estates falls, approximately, at the rate of 10 annas (10 d. at the present rate of exchange) per acre of cultivated land, and represents one-fifth to one-fourth of the gross rental on these estates.

The land revenue on temporarily settled estates is fixed periodically at intervals of 12 to 30 years; the longer period being the more common. For estates held by proprietary brotherhoods or large proprietors the revenue is assessed on the cultivated area of a whole village or estate, averaging an area of about 800 acres, and no additional revenue is demandable on account of extensions of cultivation during the term of the settlement. Thus, increases of revenue from such lands accrue only on the occasion of periodical revisions of the assessment; these revisions are called "settlements." The revising officer takes into consideration the extensions of cultivation, the variation of prices, and the change in rents since the last settlement. On lands held by petty proprietors, that is, on ryotwaree tenures, the State obtains yearly increases of revenue as cultivation extends; a settler usually enjoys his grant revenue-free for a few years where the cost of clearing the land is heavy. At periodical settlements on ryotwaree lands the rates of revenue per acre are revised in some proportion to the change in prices since the previous settlement. At present the incidence of the land revenue on temporarily settled lands ranges, according to the fertility and advantages of the soil, from six annas (6 d.) on poor, dry soils, to six rupees (9 s.) per acre on rich, irrigated lands; and the average incidence is, approximately, 26 annas (2 s. 2 d.) per acre for all temporarily settled lands. This rate represents something less than half the gross rental of such lands as are let to tenants. A large area, especially where the land belongs to proprietary brotherhoods, is cultivated by the proprietors themselves.

In the year 1887-88 settlements of the land revenue were in progress in 50 districts, in all provinces except Oudh; in four districts the work was completed. The new system, described in last year's summary, whereby revisions of settlement have been made far more expeditious and far less expensive than formerly, has been adopted in all districts of the Punjab, the North Western Provinces, and the Central Provinces, in which resettlements have recently been begun. It is being adopted in Bombay, where the resettlements will soon be completed; but it is not applicable to Madras or Burma, where regular settlements and cadastral surveys are being made for the first time. The increase of revenue due to resettlements effected during the year was, approximately, Rx. 50,000.

The harvests were in most provinces moderately good; they were poor in parts of Orissa and of Behar, and in Western India, where the millet and cotton crops suffered from excessive rain. The number of writs of demand and other processes for collection of arrears increased; there was an increase in the amount of revenue remitted; but the uncollected arrears at the end of the year were not larger than in the previous year.

STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY.

Litigation between landlord and tenant is rife only in Bengal, the North Western Provinces, and Oudh. The total number of applications and suits under the rent laws increased slightly in Bengal and the North Western Provinces. In Oudh the new Tenancy Act caused a very great decrease in this class of business; last year's Statement showed 93,451 ejectment suits instituted by Oudh landlords in 1886, before the new law came into force; the number of such suits in 1887 was 49, and in the year 1888 was 2,040. The Bengal Tenancy Act, which has now been in force for 2½ years, has not led to increased litigation between zemindars and ryots. The business of registering proprietors and tenure-holders under the Land Registration Act in Bengal is approaching completion, nearly 1,100,000 applications for registration having been heard and decided.

WARDS' ESTATES.

The number of estates belonging to minors or incapable persons, and of encumbered estates, that were under the management of Government revenue officers during the year, was 1,344, with a total rental of Rx. 1,835,000. In the case of solvent estates, considerable sums out of the rental were spent on roads, irrigation works, hospitals, schools, and other improvements, while a part of the surplus was invested against future needs. In ten of the larger estates under the Bengal Court of Wards a regular cadastral survey and settlement is being effected on behalf of the owners, in order to place the relative rights and responsibilities of landlords and ryots in a clear and satisfactory position. On encumbered estates the surplus is devoted to paying off debts, while in some cases advances at a low rate of interest are made from the public treasury to clear off more pressing demands or loans at high rates of interest. At the end of the year's operations the cash and investments to credit of the wards' and other estates was Rx. 1,444,000; the outstanding debts were about Rx. 900,000; and debts to the amount of Rx. 317,000 had been liquidated during the year. The number of estates released free of debt or restored to the owners on majority during the year ranged from four in Madras to 14 in Bombay, all of them being free of debt. The wards were educated under the supervision of the Court.

OPIUM.

The net Indian revenue from opium of 1887-88 was Rx. 6,090,887, as compared with Rx. 6,213,913 in the previous year, and as compared with 8½ millions that used to be the net revenue in the year 1880-81. The decrease in the revenue is due mainly to the fall of price in China, consequent on large extensions of opium cultivation in that country, and partly to the terms of the Chefoo Convention, under which the import duties on opium carried into China were increased. Nearly the whole of the opium revenue accrues on opium exported to China; last year nearly two-thirds of the net opium revenue was raised in Bengal under the monopoly system, and a little more than one-third in Bombay by levying a pass duty. Under the monopoly system certain cultivators are licensed to grow opium in selected districts of the Bengal Presidency; and elsewhere the cultivation is strictly prohibited. All the crude opium grown by licensed cultivators, save a small quantity produced in the Punjab, is carried to two factories, where it is made into marketable opium, and whence it is sent to Calcutta. Opium from the stores is sold by auction once a month in quantities published 15 months before. The area of opium cultivation in Bengal was 536,610 acres in the year 1887-88; steps are being taken to reduce the area, because the good opium harvests of the past few years have yielded more than was required to supply the monthly sales and keep up the reserve. The production of opium during the year in Bengal was 69,500 chests, while 57,000 chests were exported to China. The cost of each chest produced during the two years 1886-88 was Rx. 38; the average price of a chest at the Calcutta sales in 1887-88 was Rx. 106; so that the net revenue on each chest was Rx. 68. The Bombay opium is produced in Native States of Central India and Rajputana; and it pays a pass duty of Rx. 65 on each chest that is exported to China. The Native States have engaged so to manage their opium cultivation and production as to safeguard the British revenue; and in exchange for this service they receive either money compensation or other concessions. The amount of Bombay opium entering British territory from Native States during the year was 38,462 chests, or 2,473 less than in the previous year. The total number of chests of opium exported

PROGRESS AND CONDITION OF INDIA, 1887-88

exported from India during the year was 90,090 or 1,72,620 cwt., of which SUMMARY.
85 per cent. was consigned to China, 14 per cent. to the Straits Settlements,
and 1 per cent. to other countries.

The salt duty, which had for some years stood at 2 rupees a maund of SALT.
82 lbs. for all India, and at 3 annas a maund for Burma, was raised on
the 19th January 1888 to 2½ rupees a maund in India, and to 1 rupee
(16 annas) in Burma. The enhancement of duty had an effect in reducing
the consumption of salt during the last 10 weeks of the year. Last year's
report showed an increase of 5 per cent. in the consumption of duty-paid
salt throughout the Empire. For the year 1887-88 the total consumption
was 1,802,650 tons, as compared with 1,807,675 tons in the preceding year;
the yearly growth of the consumption has thus been arrested. If it be
reckoned that 242 millions of people in British India and Native States
consumed duty-paid salt, then the average consumption per head was
12·05 lb. per annum. The rate of consumption varies widely in different
provinces from 18½ lbs. per head in Southern Madras to 8½ lbs. per head in
Northern India. The consumption fell off markedly, as compared with
last year, in Northern India and in the district of Ganjam of the Madras
Presidency. A consumption of 12 lb. per head, with a duty of 2½ rupees
per maund of 82 lbs., means that the salt tax falls on the Indian population
at the rate of nearly 6 annas (about 6 d. at present rates of exchange) per
head per annum.

• The salt revenue of the year was Rx. 6,670,000 as compared with
Rx. 6,657,000 in the preceding year; the salt charges were reduced by
Rx. 76,000, so the net salt revenue was Rx. 89,000. higher. Approximate
figures of the salt revenue and salt consumption for 1888-89, the first com-
plete year of the enhanced duties, show that the total consumption of salt
had fallen by 3·7 per cent., and the salt revenue had risen 19 per cent., as
compared with the last complete year before the change in the rates of
duty.

The stamp revenue of the year was Rx. 3,876,000, or 3½ per cent. above STAMP REVENUE.
the previous year. In the year 1886-87 the growth of this revenue had been
2½ per cent. The proportion of the stamp fees on litigation remains at
about five-sevenths, and of stamp fees on commercial and other documents
at about two-sevenths of the whole stamp revenue.

The excise revenue on liquor and drugs is raised partly by a still-head EXCISE ON
duty on spirit, partly by fees from shop licenses, and partly by the sale of LIQUOR.
the monopoly of manufacture and vend within specified areas; in tracts
where the last system is adopted the monopolist is allowed to maintain and
work one or more stills and to open a fixed number of shops, at specified
places, and his license covers the right to manufacture liquor for such
shops. Licenses, especially monopoly licenses for fermented drinks like
palm tree juice and rice beer, and for the sale of narcotic drugs, are usually
sold by auction for a year or for a term of years, so as to prevent jobbery
and to obtain a full revenue from each license. The total excise revenue
of 1887-88 was—

	Rx.
From licenses and monopoly fees for spirits and fermented liquors - - - -	2,142,415
Distillery duties and fees - - - -	1,195,362
Duties on narcotic drugs - - - -	410,121
Duties on opium consumed in India - -	742,439
Upper Burma revenue, fines, &c. - -	44,318
Rx.	4,534,655

The charges of the Excise department were Rx. 127,078, leaving a net
revenue of Rx. 4,407,577, against a net revenue of Rx. 4,258,000 in the year
1886-87. This total is exclusive of the customs duties on imported wines, beer,
and

10 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY.

and spirits, which yielded Rx. 522,604 in the year. The increase of excise revenue continues, but it is claimed that most of this increase is due to improved administration, whereby more of the liquor that is consumed pays a higher duty than before. It is certain that over the greater part of British India, spirits are now much dearer than they were some years ago. The import duty on foreign spirits was raised 25 per cent. in January 1887; in part of Bombay the still head duty on Indian spirits has during the past few years been raised from R. 1 per gallon of proof spirit to Rs. 3 $\frac{1}{16}$ per gallon of spirit 25 per cent. below proof; in the parts of the Madras Presidency, where all liquor pays a still head duty, the rates of duty have been so raised that over an area where four years ago a consumption of 1,204,241 gallons paid Rx. 281,000 as duty, a consumption of 1,270,146 gallons now pays Rx. 415,000 as duty. There has also been a considerable enhancement in the duty charged on opium and other narcotic drugs that are consumed in India. The number of shops has been considerably reduced in nearly all provinces. Much attention is now being given to excise management; the areas under the farming or outstill system are being restricted; an effort is being made to restrict or not to prevent increase of consumption, while at the same time rates of duty are raised.

CUSTOMS.

A duty of half an anna per gallon (about 3 per cent. *ad valorem*) was imposed in February 1888 on all petroleum imported into India. For the rest, the customs duties are unchanged, that is to say, duties are levied on imported liquors and exports of rice; a duty is levied on firearms, rather for police than revenue purposes; all other exports and imports, save opium and salt, are free of duty. The gross yield of the import duties was Rx. 564,000, as compared with Rx. 510,000 in the previous year; and of the rice duties was Rx. 756,000 or Rx. 49,000 more than in 1886-87. The petroleum duty yielded Rx. 13,000 in the seven weeks of 1887-88, and produced Rx. 117,000 during the 12 months of 1888-89.

INCOME TAX.

The income tax remained at the same rates of incidence as in the previous year, namely at 2 and 2 $\frac{1}{2}$ per cent. respectively on incomes of Rx. 50 and Rx. 200 a year or upward. The arrangements for assessing and collecting the tax were rendered cheaper and smoother; the net receipts increased from Rx. 1,277,510 in the previous year, to Rx. 1,382,808 in the year 1887-88. Objections were promptly heard; in less than $\frac{1}{2}$ per cent. of the assessments was it necessary to sell up the property of defaulters.

FORESTS.

The forest lands of India belong mainly to the State, except in parts of Lower Bengal; and the efforts of the Forest Department are directed to selecting the best and most remunerative forest areas, to marking off these areas as reserves, to conserving them and securing reproduction of timber, and to working the produce of the reserves to the best advantage. Outside the reserves there are in some provinces very large forest or waste areas, which are accessible to the people, and can be reclaimed for cultivation when need arises. The reserves, however, will always be retained as State forests, to be conserved and worked according to the best principles of scientific forestry for the good of the neighbouring populations and the advantage of the public treasury. The Forest Department is manned by European officers, who have been trained at forest schools in Germany and France, or at Cooper's Hill College, and also by Indian and other officials trained in the forests or at the Indian Forest School established at Dehra in the North West Provinces. Timber and other forest produce in the reserves are worked out in rotation, or on other scientific principles, so as to prevent exhaustion of the supply. Natural reproduction is safeguarded by the exclusion of the yearly fires which used to devastate most Indian forests; and artificial reproduction is effected by systematic plantations. Forest revenue is raised by selling or giving permits for timber, for firewood, for charcoal, for bamboos, for grazing, and for other minor forest produce, with due regard to the claims and comfort of neighbouring rural populations. The extensive State forests and wastes outside reserves are worked so as to produce revenue and to meet local demands, with such rough and inexpensive conservancy as may be practicable. Private forests, wherever demand for timber exists, are being worked without regard to reproduction; and this circumstance

PROGRESS AND CONDITION OF INDIA, 1887-88.

circumstances makes the careful conservancy of public forest property all the more important. Forest conservation began in some parts of India 40 years ago; but systematic conservancy under regular forest laws began under the forest administration of Dr. (now Sir Dietrich) Brandis several years later. SUMMARY.

There are now in British India 53,750 square miles of reserved forests, of which 1,795 square miles were reserved during the year 1887-88. Most of these reserves have been properly demarcated, and in all of them full investigation and settlement of private rights has been completed or is in progress. Systematic fire protection was in 1886-87 carried out over about one-third of the reserved forests, with the result that fire was absolutely excluded from 90 per cent. of that area. Regular plantations of the best timber-bearing trees cover 79,690 acres, of which 4,687 acres were added during the year. The total forest revenue of British India was Rs. 1,124,000, against an expenditure of Rs. 720,000, leaving a surplus of Rs. 404,000, as compared with a surplus of Rs. 384,000 in the preceding year. The surplus does not increase so rapidly as in former years, because the demand for wooden sleepers on Indian railways has abated. Five-eighths of the whole forest surplus accrued in the provinces of Burma and Bombay. About one-half of the gross revenue was yielded by timber operations, and the remainder by firewood, charcoal, grazing dues, bamboos, rubber, and other minor forest produce. A good deal of teak timber and cutch (a substance extracted from the heartwood of the acacia catechu, used for tanning, for dyeing, and for preserving nets) is sent from Burma to Europe; and a small quantity of rubber, of forest gums and fibres, of bamboos, of canes, and of wild silk, are exported from India. But the great bulk of the yield of the forests is consumed, and most of the forest revenue is paid, by the people of India.

The seasons of 1886-87 were marked by abnormal rainfall, which injured the millet and cotton crops; the rice crop was abundant except in Burma; the spring crops of Northern India were injured by frost; and prices of food grains on the whole ruled higher than in the previous year. The exports of wheat and cotton were smaller than in the previous year; and the exports of wheat were far below the average.

The agricultural departments in the several provinces devote their energies primarily to improving the village cadastral maps and land records, which are prepared annually. The village accountants and the officials charged with this business are rapidly qualifying in surveying and account keeping; so that already improvement is manifest. At page 145 of the Statistical Abstract for 1887-88 will be found details of the areas under different crops for a great part of British India; but no agricultural statistics are available for the provinces of Bengal and Upper Burma, for the permanently settled districts of Madras, or for a part of Bombay. Thus trustworthy information on this topic is wanting for more than one-third of British India and for the Native States. The principal extensions of the cropped areas returned for the year 1887-88 took place in the provinces of Madras and the Central Provinces. The increases on the cultivated area came to 1,122,000 acres in all. In consequence of the character of the season, large areas were temporarily transferred from autumn crops, such as cotton and millet, to spring crops, such as wheat and barley. The abstract statement of crop areas for tracts equal to nearly two-thirds of British India, presented at pages 11-12 of last year's Summary, stands thus for the year 1887-88 :-

12 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY

	Total Area under each Crop in 1887 over about two- thirds of British India.	Grand Totals.
FOOD CROPS:--	Acres.	Acres.
Rice	24,239,000	
*Wheat	19,887,000	
Millet, Pulses, and other Food Grains.	73,992,000	
Sugar	1,769,000	
Tea, Coffee, and miscellaneous Food Crops.	3,470,000	
TOTAL		123,357,000
NON-FOOD CROPS:--		
*Cotton	9,042,000	
Oil Seeds	7,300,000	
Other Non-Food Crops	4,307,000	
		20,649,000
GRAND TOTAL		144,006,000

N.B.—These figures for the wheat and cotton area are actually ascertained figures for a part only of British India; they, therefore, do not tally with the total figures of wheat and cotton cultivation given in the "Agriculture" section of this Statement. The latter figures include estimates of the cultivation for provinces, whence precise statistics are not obtainable.

Of this total 12,774,000 acres yielded two crops in the year; and 24,936,000 acres, or 17 per cent. of the whole crop area was irrigated. The proportion of food crops was considerably larger than in the previous year. If estimated figures, with the same proportions, namely $1\frac{1}{4}$ per cent. and $85\frac{2}{3}$ per cent. respectively, be added for the rest of British India, which comprises a population of about 76 millions, and perhaps 71 million acres of cultivated land, the total crop area will stand thus:—

	Acres.
Under food crops	184,181,000
.. non-food crops	30,825,000
Total for British India, with a popula- tion of about 209 millions	215,006,000

This total does not include fallows or grazing lands, but it includes the breadth of second crop. The areas under cultivation per head of the people vary greatly; thus in Bombay, over much of which province the soil and the farming are poor, there are $1\frac{3}{4}$ acres of crop land to every head of the population; while in the North-Western Provinces, where the land is rich, irrigation is common, and farming is high, there is only three-quarters of an acre of cropped land to every head of the population. No crops are grown exclusively for fodder.

The rainfall of the year 1888 was abnormal in many respects. The cold weather rain of January was deficient in the North-Western Provinces; the monsoon-rainfall began late in North India, and ceased early in Assam and Bengal. The rainfall was excessive in the North-Western Provinces and Burma, but was deficient in Guzerat, Ganjam, and in part of the Central Provinces and the Deccan. The early rains were deficient in South India, while the late (or north-east) monsoon was abundant. These irregularities affected the harvests of 1888 adversely in Ganjam, in Guzerat, in the Central Provinces,

RAINFALL OF
1888.

Provinces, and in part of Behar. Dacca was visited by a remarkable tornado in April, during which 112 persons were killed, and 1,200 injured, besides great destruction of property. In Moradabad occurred an unusually severe hailstorm, which is said to have killed about 200 people.

There was further increase in postal facilities and in the work of the post-office during the year. The number of post-offices and pillar boxes was increased by 3 per cent, and the length of postal lines by 4½ per cent.; the number of letters, newspapers, and parcels passing through the post-office was 268½ millions, or 5½ per cent. more than in the previous year. The parcel insurance and money-order business continues to expand. At the postal savings banks the number of deposit accounts increased during the year from 219,010 to 261,157, and the balance at the credit of depositors rose from Rx. 4½ millions to Rx. 5 millions. The postal receipts were Rx. 1,214,196, or 5 per cent. above the income of the previous year; and the net charge on account of the Post Office fell from Rx. 195,999 to Rx. 161,019.

The length of telegraph line and cable in India is now 31,895 miles, of which 1,859 miles represent the extensions of 1887-88; the number of messages was 2,802,299, an increase of 289,030 over the previous year. The system of opening telegraph offices at outlying post-offices is being further extended. The receipts were Rx. 662,866, yielding a surplus of Rx. 233,642 on the revenue account, equal to 5·46 as against 4·58 per cent. in the preceding year on the capital outlay; the additions to the capital expenditure during the year amounted to Rx. 234,955, or Rx. 23,828 more than in the previous year.

The Indo-European telegraph line *via* Teheran was transferred to the care of the Indian Telegraph Department, and the separate Director-Generalship was abolished. The finances of this line are, however, kept distinct. The net revenue was 15,704 l., equal to 1·4 per cent. on the capital outlay of 1,128,159 l.

The total State outlay on Public Works in India during the year may be thus stated:—

Capital Expenditure not charged to Revenue:	Rx.	Rx.
Railways - - - - -	2,251,776	
Irrigation - - - - -	533,048	
		2,784,824
Charged to Revenue under other Heads:		
Railways: Construction - - - - -	80,945	
Railways: On Revenue Account - - - - -	16,655,746	
Irrigation (including Construction) - - - - -	2,552,652	
Military Works (including Special Defence Works).	1,688,977	
Civil Works - - - - -	4,218,989	
		25,196,409
GRAND TOTAL - - - Rx.		27,981,233

Against this expenditure may be set the receipts, from Railways, Rx. 14,533,360; from Irrigation, Rx. 1,714,274; from Buildings and Roads, Rx. 592,338; total, Rx. 16,839,972.

On the 31st March 1889 there were 15,243 miles of open railway in India, of which 880 miles were opened during the previous 12 months; 2,272 miles more were under construction. The chief extensions of the year were on the Mandalay, the Bengal-Nagpur, the Indian Midland, and the Nizam's lines. The total capital outlay on railways up to the end of the year 1888 was Rx. 193,154,378, and the cost of the open lines averaged Rx. 13,000 per mile, ranging from Rx. 1,848 on the Jodhpore Railway to Rx. 21,483 on the East Indian Railway. The gross earnings of all lines for the year were

44 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY.

were Rx. 19,764,877; or 1½ millions more than in the year 1887; working expenses came to about 50 per cent. of the gross earnings; and the net revenue yielded 5.12 per cent. per annum on the capital cost. This average dividend was slightly smaller than in the preceding year, in consequence of the increase in working expenses. Though the dividend on the total railway capital is apparently more than 5 per cent., and though the Government is not liable for more than 5 per cent. on any guaranteed capital, or for more than 4 per cent. on State railway capital, still the Indian Treasury lost on its current railway transactions Rx. 2,267,800 in 1887-88, and is estimated to lose Rx. 2,115,000 in 1888-89. This loss is explained partly by the fact that two guaranteed railways were entitled to one-half the surplus profits on their lines above 5 per cent., or a sum of 514,240%, partly by the fact that interest on guaranteed railway capital has to be paid in gold, while the earnings of the lines are realised in silver, and partly by the fact that on three out of five guaranteed lines the net earnings fall short of the interest charge by 300,000.

The fares and rates charged on Indian railways range from 1¾ pice to 3 pice per mile (less than one farthing on the average) for the lowest class of passengers, and from 2½ pice to 8 pice (less than one halfpenny per ton per mile on the average) for grain and coal. The total number of passengers travelling was 103 millions, and of tons of goods moved 22 millions.

Among the more important railway works prosecuted during the year were the great bridge over the Indus at Sukkur, which was opened for traffic on the 27th March 1889; and the tunnel through the Khwaja Amran range between Baluchistan and Kandahar, of which tunnel 2,458 yards out of 4,133 total length have been bored.

IRRIGATION.

The areas of land irrigated by Government works were, for the year 1887-88—

	Acres.
In Madras	4,872,191
In the Punjab	2,250,081
In Sind	1,436,904
In the North Western Provinces	1,517,288
In Bengal	485,848
In Bombay	46,187
In Ajmere	21,232
TOTAL	10,629,731
TOTAL for preceding year	9,951,396

The irrigated areas in every province except Ajmere were larger than in the previous year. For irrigation works, which watered last year 7,590,836 acres, separate accounts of capital outlay, working expenses, and revenue yield, are kept. The works which water the rest of the irrigated area are chiefly in Madras, Sind, and the Punjab; they were constructed from revenue in past years, and they now yield large returns. The total irrigation expenditure of the year was Rx. 2,552,652. The irrigation and embankment works, for which detailed accounts are kept, show the following results to the end of the year 1887-88:—

Capital outlay to end of the year, including capitalised land revenue of land occupied by canals, also pension or leave allowances	31,226,609
Gross irrigation revenue	2,016,597
Working and maintenance expenses	947,693
Percentage of net receipts on capital outlay	3.4 per cent.

The total dividend is one-tenth per cent. smaller than in 1886-87 by reason of the increased cost of working and maintenance. The irrigation works of the Cauvery, Kistna, and Godavery deltas and of Sind, yield net returns of more than 10 per cent. on the capital outlay; and the great canals

PROGRESS AND CONDITION OF INDIA 1887-88.

canals of Upper India, where they are complete, yield about 5 per cent. **SUMMARY.** But the irrigation account is burdened with nine millions of capital expended on the Orissa, Kurnool, Sone, and Betwa Canals, of which the Orissa and Kurnool Canals were taken over from private companies, and none of which yield any appreciable dividend.

Out of a total outlay of Rx. 1,744,434 on military works, a sum of **MILITARY WORK** Rx. 512,374 was spent on coast and frontier defences. Further progress was made with the defences at Aden, Bombay, Karachi, Calcutta, and Rangoon.

The outlay on public buildings was Rx. 886,672, most of which was devoted **CIVIL WORKS.** to repairs and maintenance. Rx. 2,527,892 were spent on roads and other public improvements. In some provinces the outlay was incurred chiefly in the maintenance and repair of existing roads, bridges, and navigable channels; but the construction of new roads was pushed energetically in Upper Burma, and on the North West frontier, while many short roads were begun to connect the new railways in southern Bombay with the country markets around. Much of the outlay on local roads is now managed by district boards in all provinces. Among the more important public improvements prosecuted during the year were the Madras Harbour, the Calcutta Docks, a dry dock at Bombay, and the Karachi port improvement works.

Exclusive of Government transactions, the foreign trade of India for the **TRADE.** year 1887-88 stood in round numbers, thus:—

	Rx.		Rx.
Value of exports of merchandise by sea	90½ millions.	Value of imports of merchandise by sea	62½ millions.
Value of exports of merchandise across the external land frontier	4½ millions.	Value of imports of merchandise across the external land frontier	3½ millions.
		Net imports of treasure by land and sea	12½ millions.
TOTALS	Rx. 95½ millions.		Rx. 78½ millions.

The grand total of 173½ millions exceeds the corresponding total of the previous year by 10½ millions, and the average yearly increase in the value of the total trade of India during the past ten years has been 5½ per cent.

The Secretary of State's bills paid during the year in India were Rx. 20½ millions. The imports of merchandise by sea were 6½ per cent., and the exports were 2 per cent. larger than in the previous year. The chief items of the exports were:—

	Rx.
Cotton - - - - - valued at	14,412,842
Opium - - - - - „	10,067,764
Oil-seeds - - - - - „	9,385,024
Rice - - - - - „	9,291,687
Wheat - - - - - „	5,562,373
Jute and jute goods - - - - - „	7,786,739
Tea - - - - - „	5,174,440
Cotton yarn and goods - - - - - „	5,227,929
Indigo - - - - - „	3,890,649

In all these articles except wheat and opium the exports showed a large increase over the preceding year. The export of cotton goods and cotton yarns

16 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY.

yarns from Bombay mills into Chinese, Japan, and other markets showed an increase of 24 per cent. on the previous year. The chief items of the import trade are :—

Cotton yarns and goods	valued at	Rx. 7,506,000
Metals, apart from railway materials	"	5,313,000

The value of imported cotton goods decreased 10½ per cent., the value of imported metals increased 11 per cent., and the value of sugar imports continues to increase. The port of Bombay had a foreign trade valued at Rx. 72,952,000, while the Calcutta trade came to Rx. 68,327,000. Of the Indian imports, 80 per cent. came from the United Kingdom. Of India's total trade, exclusive of treasure, 55 per cent. was with the United Kingdom; 11 per cent. is with China; 5 per cent. with France; from 3 to 4 per cent. with Italy, and the Straits Settlements respectively. The total shipping entered and cleared at Indian ports during the year was 7,189,465 tons, of which 84 per cent. was under the British flag.

The countries which have the largest land trade with India are :—

Nepal	with a trade valued at	Rx. 3,035,000
Cashmere	" "	1,223,000
Cabul	" "	815,000

There was a considerable advance in the trade with Nepal and Cashmere, but a decrease in the Cabul trade as compared with the previous year.

Approximate figures for the trade of the year 1888-89 show that the commerce of India continues to increase; the value of the exports of merchandise was close upon 97 millions, and of the imports 66½ millions, while the net imports of treasure were little less than in the year 1887-88. The imports of cotton piece goods were Rx. 3,843,000 in excess of the figures for 1887-88; and the value of kerosine imports from Russia rose from Rx. 227,000 to Rx. 834,000. Wheat, jute, and cotton yarn exports increased by Rx. 4,951,000, while rice exports fell off by Rx. 1,376,000 in value. The exports of Indian tea show a further increase of 9½ million lbs.

MANUFACTURES.

Once in ten years only are statistics prepared of the weaving, carpentering and other, so to speak, household and village industries. With the greatly increased importation and production of machine-made yarns and cotton goods the weaving and spinning industries to some extent decline; but other employments are arising and extending. For instance, on the railways, the tea gardens, and the coffee estates three-quarters of a million of people are employed, besides the labourers engaged in constructing railways. The returns of factories show that great industries of this kind are increasing. For the year 1887-88 there were—

97 cotton mills,	9 silk mills,
25 jute mills;	19 breweries,
9 paper mills,	23 coffee works,
42 rice mills,	9 sugar factories,
35 timber mills,	14 pottery and tile factories.
46 iron foundries,	

besides jute and cotton presses, oil-mills, soap, cement, lac, cutch, ice, indigo, and other minor factories.

MINERAL RESOURCES.

The out-put of coal from Indian collieries was 1,560,393 tons, or 12 per cent. above the yield of the preceding year; the total imports of coal into India by sea were 848,878 tons. Coal during the year took the place of wood as fuel on more than one line. The earth-oil industry in Lower Burma made no progress; but the company who are at present working the Upper Burma oil-field have introduced more machinery, have put down deep wells, and are beginning to make the business pay after several years of failure; the earth-oil of Baluchistan has not yet come into regular consumption.

consumption on the railway. Of the many gold mines opened in Southern India only two had paid dividends from their working; and of these the out-put was said to be 16,686 ounces of gold during the first four months of 1889, as compared with 6,365 ounces during the same period of 1888. A lease for working the Burmese ruby mines has been granted to a British company for a term of seven years; the company will pay a rental of Rs. 40,000 a year, plus one-sixth their profits.

Education continues to make progress in India, though the proportion of the total population able to read and write, and the proportion of children of school-going age under instruction are still very small in every province except Burma. The number of schools and colleges in British India rose from 127,116 at the beginning to 133,129 at the end of the year 1887-88, and the total number of scholars had during the same period risen from 3,343,544 to 3,460,844. Of this latter number 278,201 were girls. It is estimated that in British India 11·8 per cent. of all the children of school-going age attended school, but for girls of school-going age the percentage was only 1·8 per cent. In both cases the ratio shows a decided advance on the figures for the preceding year. At the five universities, which hold examinations, grant degrees, and practically control higher and secondary education throughout India, there were 13,189 undergraduates studying at 125 colleges, among whom 17 were girls. The number of students who gained university degrees were,—

In Arts or Science -	992
In Law -	313
In Medicine -	10
In Engineering -	44

A large number of students obtained subordinate diplomas in medicine and engineering, who had not passed through the full university course. The number of boys and girls that presented themselves for the entrance or matriculation examination at the several universities was 16,057; of whom 5,577 passed. The candidates came—

	Candidates.	Passed.		Candidates.	Passed.
From schools under public management.	3,429	1,748	Other institutions	4,710	1,682
From aided schools	4,390	1,817	Private tuition	3,468	330

The number of scholars at secondary schools was 441,876, or 3 per cent. more than in the previous year; at primary schools the number of scholars increased from 2,513,934 to 2,550,384. The number of children that passed public examinations by standards below the university examinations were,—

	Boys.	Girls.
Middle school standard	9,214	325
Upper primary	17,894	833
Lower primary	43,221	1,804

There were 105 training schools for schoolmasters and 35 for schoolmistresses; from these institutions 1,890 men and 66 women gained certificates as qualified teachers.

The number of technical schools in British India was returned at 14 medical schools, 15 engineering and surveying schools, four schools of art, and 73 industrial schools. The most important technical schools are those maintained at the workshops of the great railways.

18 STATEMENT EXHIBITING THE MORAL AND MATERIAL

SUMMARY.

The year showed a satisfactory increase in the number of Mahanimadans attending college and school, especially in Bengal, the total number of Mahammadan scholars having risen to 804,485 from 752,441 in the previous year; among other classes of scholars there were 2,365,794 Hindoos, 23,160 Europeans and Eurasians, and 74,498 Native Christians.

The total expenditure on education during the year was Rx. 2,619,128, as compared with Rx. 2,524,241 in the preceding year. There was a considerable reduction in the outlay on buildings; but the expenditure on colleges and schools increased. The expenditure of the year came from public funds.

	Rx.	Rx.
From Public Funds:		
Provincial -	729,857	-
Local -	464,155	-
Municipal -	129,432	1,322,944
From school fees -	-	729,409
From other sources -	-	566,775
TOTAL -	-	2,619,128

LITERATURE AND PRESS.

During the year 1887-88 there were 395 vernacular journals published in India, but some of these are said to have issued for a short time only, or irregularly. The largest circulation of any daily journal was returned at 7,000, and of any weekly at 20,000 copies. The languages in which these papers were published were—

Bengali.	Teloogoo.	Koren.
Hindi.	Canarese.	Gurmuikhi.
Marathi.	Uriya.	Persian.
Guzerathi.	Malayalim.	Arabic.
Urdu.	Burmese.	Sindhi.
Tamil.		

The vernacular journals discussed general politics, local questions, science, social reform, the National Congress movement, and alleged shortcomings of executive and judicial officials of many departments and grades. Some of them are conducted with ability and moderation; others are apparently edited and written by persons little fitted for the duty of guiding and instructing Native public opinion. There was no censorship on any of these journals, and no restriction beyond the general law against libel, against indecency, and against exciting sedition. The total number of books and publications registered during the year was 8,645, or slightly below the number of the preceding year; about nine-tenths of these were in vernacular languages. The subject of the greater number of these works fell under the heads of language and school-books, religion, poetry, drama, and fiction; there was also a considerable number of books on history, biography, and a few on scientific topics.

MUNICIPALITIES.

At the end of 1887-88 there were in India 726 municipal towns, containing a population of 14½ million souls. These municipalities are of varying size, from Bombay city, with nearly 800,000 people and yearly receipts of Rx. 600,000, down to towns with less than 5,000 people and receipts under Rx. 200 a year. The municipalities are controlled by committees, which, under the law applicable to each province, can impose taxes, enact bye-laws, make improvements, and spend money; but the sanction of the local government is necessary in each case before new taxes can be levied or new bye-laws can be brought into force. In all larger towns, and in many of the smaller towns, the majority of members of committees are elected by the ratepayers; everywhere the majority of town committees

mittees consists of Natives and in many committees all the members are Natives. SUMMARY.

Elections for seats on municipal committees are usually triennial. In Bengal elections were due in 1887; the ratepayers were the constituents; and two or more members were allotted to each division or ward in a town. In some cases members were elected or re-elected without contest; but as the result of all the elections 33·8 per cent. of all the persons on the published lists of voters registered their votes as compared with 20·5 per cent. at the previous election. There were wide differences in the interest taken in the elections at different towns; but in some places as large a proportion as 80 per cent. of the voters registered their votes. At the time of the general municipal election in the North-Western Provinces, a year or two earlier, elections were contested in 59 out of 97 municipalities; at the contested elections 45 per cent. out of the registered electors voted; and out of the total number of electors in all the 97 towns, 34 per cent. registered their votes. Members of committees receive no salary or fee for the performance of their municipal duties, but the position of municipal member is considered honourable; from many sides it is reported that committee-men ordinarily attend regularly to municipal business and take increasing interest in local public duties. So far as can be seen, the tendency of the elected majority is stronger towards economy and restriction of expenditure than in the case of the governing bodies under the previous system; the elective committees are in favour rather of reducing local taxation than of increasing municipal burdens.

The total receipts and expenditure of the year for all municipalities in India were:—

RECEIPTS.		Rx.
Octroi duties	- - - - -	752,000
Other taxes	- - - - -	1,252,000
Sources other than taxation	- - - - -	751,000
Loans	- - - - -	702,000
TOTAL	- - - - -	3,457,000
TOTAL for 1886-87	- - - - -	3,095,000
EXPENDITURE.		Rx.
Cost of collection and administration	- - - - -	277,000
Public health	- - - - -	1,466,000
Public safety	- - - - -	304,000
Public convenience, including streets and roads	- - - - -	501,000
Repayment of, and interest on, debt	- - - - -	272,000
Miscellaneous	- - - - -	499,000
TOTAL	- - - - -	3,319,000
TOTAL for 1886-87	- - - - -	2,935,000

Municipal loans have been incurred only for large permanent improvements, such as waterworks and drainage works; sinking funds for the liquidation of such loans within a limited term of years are in every case established; and during the year no municipality failed to set apart the full sum required for the interest and sinking fund of its loans.

SUMMARY.

In some provinces the duties connected with schools, hospitals, vaccination, and such like matters committed to municipalities, are wider than in others. Everywhere municipal committees have the care of the roads, water supply, drains, markets, sanitation and improvement of their towns. So far as funds permit, the maintenance and improvement of towns are carried out, the large proportion of the funds that is devoted to purposes connected with public health show that municipal bodies are not unmindful of sanitary needs; but funds are limited; elective municipalities are rightly very loth to increase local taxation; and so improvement in all, save the great rich cities, must be very gradual. Waterworks, and water supply improvement were the most important of the great municipal undertakings of the year.

DISTRICT BOARDS.

In last year's statement it was mentioned that the duties of district and local boards had been widened and their constitution amended under recent enactments. The year 1887-88 was the first complete year of the operation of the new boards. In Bengal and the North-Western Provinces the majority of members are elected; and at the Bengal elections for local boards the proportion of registered voters that actually voted ranged from 11 to 96 per cent., and averaged over 50 per cent. The local boards almost everywhere elect their own chairmen; but the chairman of a district board is usually the magistrate of the district. It is reported that in Bengal the new boards began well, and the members took a fair interest in their work; that in the North-Western Provinces the local boards have displayed much interest in their work, and have throughout accepted the responsibility of watching and controlling expenditure from district funds; that in the Punjab the arrangements for constituting the new district boards are now completed; that in the Central Provinces the work of the district councils and local boards is on the whole satisfactory, though it varies in quality; that the attendance of members is sometimes irregular, and that their best work was done in educational matters; that in Assam the local boards effected a considerable number of local improvements; and that in Madras the local boards now administer successfully a local fund income of 63 lakhs, being assisted by taluk boards and village unions, which worked during the year with a fair measure of success.

HOSPITALS.

There were 1,508 hospitals and dispensaries open at the end of 1887, or 72 more than in the previous year. A certain number of special hospitals for women, of women's wards, and of children's wards, are established or are being opened, partly by Native liberality, as in the case of the Rama Hospital at Bombay, partly by missionary societies, and partly under the impetus given by an association which was founded by the Countess of Dufferin. The total number of indoor patients treated was 248,439, and of outdoor patients, 10,632,189. The hospital death-rate was slightly lower on the whole than in the previous year. The number of more important surgical operations was returned at 43,733, a slight decrease on the total of 1886. In 24 lunatic asylums a total of 5,349 patients were under treatment, among whom the death-rate was somewhat higher than in the previous year. According to the latest return there were 22 leper asylums in operation under local bodies in the different provinces, with a total of 2,077 inmates.

VACCINATION.

Ten more towns in Bengal, besides a few towns in other provinces, have voted the extension of the Compulsory Vaccination Act to themselves. Over the whole country the number of successful vaccinations was 5,211,274, as compared with 4,950,893 in 1886. The ratio of vaccinations to the total births ranged from 75 per cent. in Berar, and above 50 per cent. in some other provinces, to 11 per cent. in Burma. More than two million of the successful operations were performed on infants under one year old. The proportion of successful vaccinations to total operations improved in every province except Berar. The total reported deaths from small-pox rose to 65,757 from 51,112 reported in the previous year for all India; in the cities of Calcutta and Madras, where adequate protection has been given for some years, only 25 deaths and 13 deaths respectively were recorded as due to small-pox; from Berar also, where the vital statistics are exceptionally complete, only 311 small-pox deaths were returned.

EMIGRATION.

So far as the movement of emigrant labourers from India and in India is observed, the returns for 1887 were as follows:—

Emigration and Migration.			Return Home.			SUMMARY.
Province from which they Depart.	Destination of Emigration.	Number of Emigrants.	Place or County whence they Return.	Province to which they Return.	Number of Returning Emigrants.	
Bengal	West India Sugar Colonies.	5,966	West India Sugar Colonies	Bengal	6,406	
Madras	Mauritius and Natal.	932	Mauritius and Natal	Madras	1,065	
Madras and South India	Straits Settlements.	17,353	French Colonies	French Possessions in India.	3,725	
Madras	Ceylon	69,980	Straits Settlements	Madras and South India.	29,416	
Bengal and Madras	Burma	90,362	Burma	Bengal and Madras.	52,051	
Bengal	Assam	36,463				
TOTAL		221,056	TOTAL		93,563	

There was an immense deal of migration from district to district or from province for purposes of labour which is not registered. The emigration to the sugar colonies and to Assam is regulated by law, and the labourers are under contract for terms years. For the rest emigration is free. Emigration to the West Indies has decreased much of late years by reason of the decline of the sugar industry; such emigrants as go appear to keep their health and to do well; the 6,405 who returned to Bengal from the West Indies during 1887 brought back with them savings that averaged Rs. 14 per head; the emigrants returning to Madras from the Mauritius also brought back savings; but the returning emigrants from Natal were, all but one, stated to be paupers or invalids. The Indian labourers in the Assam tea districts now number 324,000 persons; it is reported that the relations of these people with their employers are on the whole good; that their health during transport to Assam and while on tea gardens there is improving, and that the number of unhealthy gardens is diminishing. The change in the law, which permitted so-called free emigration to Assam, has opened a door to serious malpractices in the recruiting districts, and fresh legislation on this matter is now proposed. A proportion of the Indian labourers emigrating to Burma and the Straits settle in those countries, but the majority return home every year; the high wages there enjoyed enable the labourers to carry home considerable sums. The majority of emigrants go from the Madras Presidency, the North-Western Provinces, Oudh, and Chota Nagpore.

The actual strength of the Army in India on the 1st April 1888 was:— ARMY.

British Troops:

Artillery, 82 batteries	-	-	-	-	-	} 69,910 men.
Cavalry, 9 regiments	-	-	-	-	-	
Infantry, 53 battalions	-	-	-	-	-	

Native Troops:

Artillery, 9 batteries	-	-	-	-	-	} 148,747
Cavalry, 48 regiments and corps	-	-	-	-	-	
Infantry, sappers, 127 battalions and corps	-	-	-	-	-	

TOTAL - - - 218,657

The force employed in Upper Burma at the beginning of the year 1888-89 was 19,574 men, and it was reduced by the end of the year to about 12,000 men. The military operations of the year have been confined to Upper Burma, and the expedition to oust Thibet troops from the British dependency of 85.

of Sikkim. The death-rate among European troops fell from 15·18 per mille in 1886 to 14·20 per mille in 1887; and among Native troops from 13·27 to 11·68 per mille. The rate of admissions to hospital and the daily sick rate was reduced among European, but increased somewhat among Native troops.

The number of volunteers enrolled at the end of the year was 18,988, of whom 15,458 were returned as efficient; of the "efficients" 1,086 were mounted men, and 441 were artillery.

The net expenditure on the Army in 1887-88 was Rx. 10,357,000, or Rx. 817,000 more than in the previous year. This figure does not include a sum of Rx. 1,744,000 spent during the year on military works and defences.

MARINE.

Naval duties in Indian seas are undertaken by the Admiralty, who, for a payment of £. 70,000 from the Indian Treasury, maintained during the year 1887-88 a squadron of six ships in Indian waters. This arrangement has since been revised; and it has been provisionally settled that four ships of war shall be provided at a cost of £. 38,500 a year from India. The Marine Department had at the end of 1887-88 eleven sea-going steamers, which were employed on carrying troops, on lighthouse work, on marine surveys, and for miscellaneous duties at Aden, at the Andaman Islands, in the Persian Gulf, and in other Indian waters; they had two turret ships for the defence of Bombay Harbour; and they had 13 river steamers, besides flats and many smaller craft for pilotage work, for harbour torpedo service, and for survey duties, and for inland waters in Bengal, Burma, Assam, Sind, and Turkish Arabia. Two Government dockyards are maintained at Bombay and Calcutta, at which all Government vessels are repaired and smaller craft built. The cost of the Marine Department was Rx. 671,000 in 1887-88, as compared with Rx. 848,000 in the previous year; in both years there were receipts of about Rx. 200,000 as a set-off against the cost of pilot establishments, light-houses and dockyards. The decrease of expenditure is due to the great reduction of outlay on the hire of troopships for Burma and on river vessels for Burma waters. The marine expenditure includes the subsidy to the Admiralty, the cost of troopships in Indian seas, and the cost of lightships and lightships round the Indian coasts; but it does not include a sum of 217,833 l., charged under the head of "Army" on account of the great troopships which carry British soldiers to and from India. Under this last item a reduction of 79,000 l. was secured in 1887-88, as compared with the previous year's charges.

NATIVE STATES.

The Indian States under Native administration comprise an area of 610,000 square miles, with a population of about 61 millions of people. They yield to their Chiefs' revenues aggregating about Rx. 18,000,000, and they pay to the Indian Treasury tributes amounting to Rx. 743,000. These States are all under British political control; while the Indian Government has relations with trans-frontier and frontier tribes and States from Arabia on the west to Siam on the east. Afghanistan, Nepal, and Bhootan are reckoned as foreign and not as Indian States. Of the latter there are in all 550 Chiefs whose States are not subject to the law of British India; the chiefships vary greatly in size and character from the Hyderabad State, with 81,000 square miles of territory and a population of ten millions, to the petty chief of a few villages with a population of three or four thousand. The States which possess revenues of more than Rx. 500,000 are:—

	Rx.
Hyderabad, with a revenue of	3,050,000
Baroda	1,550,000
Gwalior	1,120,000
Mysore	1,020,000
Cashmere	700,000
Travancore	666,000
Jaipur	603,000
Indore	573,000

A few other important States like Patiala, Bhopal, Jodhpur, Udaipur, Bhartpur, Alwar, Kolhapur, and Bhavnagar, have large revenues, and are otherwise very important. Among the larger States, Gwalior, Rewah, Rampur.

Rampur, Jhallawar, and Kolhapur are at present governed by regencies, owing to the minority or incapacity of their rulers. Nearly all the States keep their expenditure within their income; many have large cash balances; some have spent and are spending large sums on railways, irrigation works and roads for the improvement of their territories; many have established courts of justice, municipalities, schools and hospitals after the model of British provinces; and a very few publish yearly or quinquennial accounts of their administration. For instance, Jaipur spent in 1887-88 on public works Rs. 105,000 out of a total expenditure of Rs. 557,000; Baroda had 32,433 children at its schools, and spent Rs. 366,000 on railways and public works, or about 24 per cent. of the year's revenue; and in several of the larger States colleges, schools and hospitals are being steadily increased. Some of the robber bands that infested Gwalior and other States of Rajputana and Central India were broken up during the year; some reduction was made in the excessive land revenue assessments of Bhopal and Gwalior, and there was some improvement in Tonk and Dholpur, which had been suffering from financial embarrassment. The accounts concerning the administration of Indore, Cashmere, Suket, Jhallawar, and of some of the Central Provinces chiefs, were unsatisfactory; while some of the lesser States of Central India were troubled by intrigues. For the rest, the Punjab States, the Rajputana States, Mysore, Travancore, and the great majority of the many Native States in Bombay, were well governed, and the subjects thereof were contented.

Relations with the tribes and chiefs on the Baluch border were satisfactory during the year. The Derajat and Banau borders were peaceful. On the Kohat frontier and in the Kuram Valley, affairs were very unsettled. On the Hazara border there were raidings and troubles that ~~led~~ eventually to the Black Mountain Expedition of 1888. There was little trouble on the Peshawur frontier or on the Khyber line, where the local levies guard the marches. There was no anxiety on the border from Hazara round to Nipal. Sikkim, a vassal state between British territory and Thibet, was violated by Thibetan troops, who established a fort in Sikkim, and who, after much fruitless negotiation, had to be turned out by military force. Some few raids into Assam were committed by the Hill Dafflas and a section of the Nagas; but for the rest the long Assam border with its many hill tribes was quiet. Serious raids were made by tribes on the Chittagong frontier; a survey party was attacked and its chief officer killed by a party of Shendoos; the frontier police posts had to be strengthened, and a punitive expedition was undertaken in this quarter after the close of the year.

A separate section of the present statement shows the progress made with the pacification of Upper Burma. The salient facts are that the military garrison has been reduced from 26,000 to 12,000 men; that the only military operations now required are among the wild border tribes; that most of the districts are quiet, and the people are settling down to peaceful pursuits; that the revenue has risen during the three years since annexation from 22 lakhs to 65 lakhs; that a railway, 220 miles long, has been made and is already getting a large traffic; that 144 miles of bridged and metalled road have been made, and that 452 more miles are under construction.

ADMINISTRATION AND LEGISLATION.

ADMINISTRATION.
India Office.

IN the Home Administration, Viscount Cross, G.C.B., continued to be Secretary of State, and Sir John Eldon Gorst, Q.C., M.P., to be Parliamentary Under Secretary of State. Vacancies in the Council of India were caused by the deaths of the Honourable Sir Ashley Eden in July 1887, of Sir Robert Montgomery, December 1887, and of Sir Henry Maine in February 1888, and by the retirement, on the expiry of 10 years' term of office, of Sir Robert Dalryell. These vacancies were filled by the appointment of Sir Alexander J. Arbuthnot, K.C.S.I., C.I.E., *vice* Sir Robert Dalryell; Sir James B. Peile, K.C.S.I., *vice* Sir Ashley Eden; Sir Alfred Comyns Lyall, K.C.B., K.C.I.E., *vice* Sir Robert Montgomery; and Sir Charles A. Turner, K.C.I.E., *vice* Sir Henry Maine.

The Earl of Dufferin, K.P., G.C.B., G.M.S.I., G.C.M.G., G.M.I.E., who had taken his seat as Governor General of India in December 1884, retained that office throughout the year under review. In the Council of the Governor General, vacancies were caused by the appointment of Sir Steuart Colvin Bayley, K.C.S.I., C.I.E. to be Lieutenant Governor of Bengal, the appointment of Sir Auckland Colvin, K.C.M.G., C.I.E., to be Lieutenant Governor of the North Western Provinces and Chief Commissioner of Oudh, and by the resignation of Sir Theodore Cracraft Hope, K.C.S.I., C.I.E. These vacancies were filled by the appointment of Sir Charles Umpherston Aitchison, K.C.S.I., C.I.E., Mr. (now Sir) David Miller Barbour, C.S.I., and Sir Charles Alfred Elliott, K.C.S.I. Mr. Barbour, however, being absent on duty in England, did not take up his appointment during the year under review, and Mr. James Westland was appointed to officiate as ordinary member in his place. Mr. (now Sir) James Braithwaite Peile also officiated temporarily as ordinary Member of Council.

Rajputana and
Ajmere.

Colonel C. K. M. Walter had charge of the office of Governor General's Agent in Rajputana and of Chief Commissioner of Ajmere Merwara during the year.

Central India.

Sir Lepel H. Griffin, K.C.S.I. was Governor General's Agent for Central India during 1887-88, but from May 1887 the office was temporarily held during his absence on leave by Mr. F. Henvey.

Berar.

Mr. Cordery held the office of Resident at Hyderabad from the commencement of the year until 13th of March 1888. Mr. Howell having been appointed officiating Resident assumed charge of his duties on the 14th of March 1888.

Coorg and
Bangalore.

No change took place in the administration of Coorg and Bangalore during the year.

Bengal.

Sir Steuart Colvin Bayley, K.C.S.I., C.I.E., was appointed Lieutenant Governor of Bengal in succession to Sir Augustus Rivers Thompson, and assumed charge of his office on the 2nd of April 1887.

Assam.

The office of Chief Commissioner was held by Mr. W. E. Ward until the 31st October 1887, when he was relieved by Mr. D. Fitzpatrick, C.S.I., who has since that date held charge of the administration.

North-Western Pro-
vinces and Oudh.

For the first eight months of the year the office of Lieutenant Governor of the North-Western Provinces and Chief Commissioner of Oudh was held by Sir Alfred Lyall, K.C.B., and for the last four months by Sir Auckland Colvin, K.C.M.G., C.I.E., who assumed office on the 21st of November 1887.

Punjab.

Sir Charles Umpherston Aitchison, K.C.S.I., C.I.E., LL.D., Lieutenant Governor, was succeeded on the 2nd of April 1887 by Mr. James Broadwood Lyall, who has since been created a K.C.S.I.

Central Provinces.

Mr. A. Mackenzie, C.S.I., held the office of Chief Commissioner during the year.

Burma.

Mr. (now Sir Charles) Crosthwaite assumed charge of the Chief Commissionership of Burma from Sir Charles Bernard on the 3rd of March 1887.

1887, and continued to administer the province throughout the year of report. In June 1887 the appointment of a Commissioner on special duty in Rangoon was abolished, and the Chief Commissioner assumed the immediate charge of the administration of Lower as well as of Upper Burma. ADMINISTRATION.

The Right Honourable Lord Connemara, who had taken his seat as Governor of Madras on the 7th December 1886, retained that office throughout the official year 1887-88. Lieutenant General Sir Charles George Arbuthnot, K.C.B., R.A., was Commander in Chief, and Second in Council throughout the year. Mr. Charles Gilbert Master, C.S.I., was Senior Civil Member of Council, and Mr. Philip Percival Hutchins, C.S.I., was Second Civil Member throughout the year.

The Right Honourable Lord Reay, LL.D., G.C.I.E., continued to be Governor of Bombay during the year. During the absence of His Royal Highness the Duke of Connaught and Strathearn, K.G., K.T., K.P., G.C.S.R., G.C.M.G., C.B., on three months leave from 31st of May 1887 (under a special Act of Parliament), Major General A. Carnegie was appointed Provincial Commander in Chief. Sir Maxwell Melvill, K.C.I.E., C.S.I., third Member of Council of the Presidency of Bombay, died on the 5th of August 1887, and Mr. J. B. Richey, C.S.I., already a temporary member, was appointed to fill the vacancy with effect from the 6th idem. Mr. (now Sir) J. B. Peile having been appointed Member of the Council of India, resigned the Bombay Civil Service from the 12th of November 1887, and Mr. (now Sir) Raymond West, M.A., F.R.G.S., LL.D., was appointed Fourth Member of Council, and took his seat on the 11th idem. Mr. Naylor acted as temporary Member of Council during the year. Bombay.

LEGISLATION.

During the year 1887-8, fifteen Acts, passed by the Council of the Governor General of India for making laws and regulations, received the assent of the Governor General. The first meeting of the Council at Simla, in 1887, was held on the 25th of May, and the last on the 21st of October. The Council re-assembled at Calcutta on the 6th of January 1888. The total number of meetings of the Council during the year was 24, namely, 13 at Simla and 11 at Calcutta. LEGISLATION. Council of Governor General.

Of the Acts passed the more important were, the Act XIV. of 1887, for the better administration of the Indian Marine Service; Act XVI. to amend the law relating to the Tenancy of Land in the Punjab; Act XVII., to amend and declare the Land Revenue Law of the Punjab; Act XVIII., establishing the University of Allahabad; Act V., of 1888, to consolidate and amend the law relating to the protection of Inventions and Designs; and Act VI. of 1888, to amend the law relating to imprisonment for debt. Acts were also passed for the regulation of Burma Military Police, and of the Indian Police, and of the Indian reserve forces; for the protection of wild birds; and for the establishment of bonded warehouses at places other than customs-ports.

During the year 1887-8, the Legislative Council of the Lieutenant Governor of Bengal had under consideration three Bills, all of which became law. Act I. of 1888, empowered the Local Government to exclude from the operation of municipal regulations lands and buildings in the occupation of the State for military and naval purposes; Act II. amended the Calcutta Municipal Act, and extended its jurisdiction over a large portion of the suburbs; and Act III. amended the Howrah Act of 1871. Bengal Council.

The first measure of the North Western Provinces and Oudh Council was passed as Act I. of 1887, the General Clauses Act, and had for its object the shortening of the language used in the Acts of the Council. Bills for regulating the sale of poisons, and for preventing cruelty to animals were under consideration. North Western Provinces and Oudh Council

Although three Acts were passed in the Legislative Council of the Governor of Madras during the official year, none of them had before its close received the assent of the Governor General, and none therefore had become law. Act I. of 1888 proposed to empower local authorities to guarantee

LEGISLATION.

guarantee interest on, or to create a fund for the repayment of capital expended on certain purposes; Act II. provided for the inspection and licensing of places of public resort and entertainment; Act III. regulated the Police in the city of Madras, giving the Commissioner of Police powers similar to those conferred by Act II. on local authorities outside Madras.

Bombay Council.

Six Acts were passed by the Legislative Council of the Governor of Bombay during the year, and were assented to by the Governor General. Act II. of 1887 provided for the protection of pilgrims at the ports of Bombay and Karachi; Act III. amended the law for the inspection and management of steam-boilers; Act IV. related to gambling; Act V. regulated public conveyances; and Acts VI. and VII. amended the law relating to hereditary offices and Toda-Giras allowances.

III.

MUNICIPALITIES, LOCAL SELF-GOVERNMENT, AND
SANITATION.

(Detailed information regarding the Sanitation of British India being furnished in a separate Parliamentary Paper (shortly to be presented), a brief Review only is given at the close of the present Chapter.)

MUNICIPALITIES AND LOCAL BOARDS.

THE gross income of the Berar municipalities, excluding previous balances, amounted to Rx. 15,492, and the expenditure to Rx. 14,226. Several useful works were carried out at Akola, Amraoti, and Khamgaon, and there was a general increase in the sums expended on public health, convenience, and education.

The attendance of the commissioners both at the general meetings and at the committees and sub-committees of the Calcutta Municipality was regular. Fourteen commissioners attended more than 50 times, and there were five commissioners who attended 100 times and upwards. Thirty-nine commissioners attended more than 50 per cent. of the meetings of the commissioners and of committees to which they were invited. This degree of interest taken by the commissioners in their work was one of the most satisfactory features of municipal government in the metropolis.

The total income of the municipality was Rx. 311,862, against Rx. 300,164 in the previous year, and the disbursements Rx. 303,357, against Rx. 299,619. With the sanction of Government a 5 per cent. loan was raised for the following purposes:—

	Rx.
Water supply - - - - -	70,550
Bustee (Native quarters) and town improvement	25,000
Extension of drainage - - - - -	16,000
Repayment of 6 per cent. loans of 1867 - - -	43,900
	Rx. 155,450

Having regard to the amount represented by transfer into new debentures, a sum of Rx. 120,000 only was advertised for by the commissioners. The total amount of tenders was Rx. 371,000, of which Rx. 341,500 were at or above par. The loan is now quoted at a considerable premium. The total loan liability of the corporation at the close of the year amounted to Rx. 1,777,918.

The expenditure actually incurred under the head of town and bustee improvements was Rx. 33,342, against Rx. 20,324 in the previous year; 18 tanks were filled up by the corporation, and 10 by the owners after notice had been served on them. The total expenditure from capital on drainage was Rx. 21,484.

The year 1887 was the healthiest on record, the mortality being 10,979, or only 25·3 per mille. Not only was the cholera mortality lower than in any year since 1880, but the year was also marked by a further fall in the death-rate from fever. The result of the health officer's investigations showed that 70 per cent. of the mortality from cholera was among the poorer population who lived in tiled huts.

The Lieutenant Governor expressed the greatest satisfaction with the administration of the commissioners; and he commented with great interest also on the results of a comparison which had been drawn between Calcutta as it was in 1876, when the present municipality was created, and as it was in 1888. During those 12 years the drainage scheme was completed, the filtered and unfiltered water supply doubled, and the roads much increased in

MUNICIPALITIES
AND LOCAL
BOARDS.

length, and better lighted and watered. Tanks had been filled up, bathing platforms constructed, bustees cleansed, and the value of land had doubled, without any increase on account of debt. It was a source of unqualified gratification to the Lieutenant Governor to know that these results had been attained without irritation or friction. The wrangling and strife which formerly disturbed municipal life in Calcutta had passed away, and the relations between the commissioners and their official chairman were, he observed, now of the most friendly and cordial character.

Bengal.

The Bengal Act of 1884, was, at the close of 1887-88, in force in 141 municipalities, against 138 in the preceding year.

The total number of commissioners in the mofussil municipalities was 2,028, who were thus divided:—

Nominated	925	Official	330	European	191
Elected	1,103	Non-official	1,698	Indian	1,837

The second general election was held during the year in all the municipalities in the province in which the elective system was in force, the commissioners elected in 1884-85 having, under section 21 of the Municipal Act, vacated their office at the expiration of three years. Considerable interest was displayed by the people in the election of their representatives on the municipal boards. In some of the municipalities the seats were keenly contested.

The total income of municipalities in the interior amounted to Rx. 292,264, and the expenditure to Rx. 292,538. The deficit was met from the balance of the previous year.

The Local Self-Government Act of 1885 came into force in 16 districts on 1st October 1886, and in the other districts on 1st April 1887. The Lieutenant Governor considered that it was too early to pronounce a decided opinion on the working of the system, but that the general tenour of the reports was full of promise. The local bodies entered upon their duties with interest and intelligence.

Assam.

The number of municipal bodies existing in Assam was the same as at the close of the previous year, 14, and the Bengal Municipal Act III. of 1884, was made applicable during the year to the three most important of them, namely, the municipalities of Gauhati, Dibrugarh, and Sylhet. The other municipal bodies remained, as heretofore, under Act V. of 1876. The total income of the 14 municipalities was Rx. 12,953, against Rx. 11,361, the increase being due partly to the inclusion of the municipality of Barpeta, in the Kamrup district, the accounts of which appear for the first time, and partly to an independent rise which took place in receipts under the several heads of taxation. The total expenditure corresponded closely with the figures of the previous year, having been Rx. 11,661 against Rx. 11,755.

North-West
Provinces and
Oudh.

The number of municipalities in the North-Western Provinces and Oudh was 109, the same as in the previous year. The income from taxation was Rx. 222,100; of this Rx. 189,800 were derived from octroi.

The general question of octroi taxation was examined during the year, and a report was made to the Government of India showing the steps taken in these Provinces to protect through trade and to restrict the duty to its legitimate sphere of a tax on local consumption only.

Punjab.

The reconstitution of the Punjab municipalities under the new Act XIII. of 1884, in lieu of Act IV. of 1873, was concluded during the year. The substitution, as far as local circumstances permit, of either partly or wholly elected, in the place of nominated, committees was also completed; and considerable progress was made by the new bodies in the work of framing rules for the conduct of business in accordance with the provisions of the law. The subject of octroi taxation continued to engage the attention of the local government. The number of towns in which the tax obtained was reduced from 163 to 161. General rules for the granting of refunds were made. More recently the Government has taken up the question of the introduction of suitable forms of direct taxation in lieu of the octroi in the larger municipalities of the province.

Central
Provinces.

In the Central Provinces there were 59 municipalities, comprising altogether 640 members, of whom eight were *ex-officio*, 165 nominated, and

467 elected, while of the nominated members 45 were non-officials, and of the elected members 12 were officials.

MUNICIPALITIES
AND LOCAL
BOARDS.

Thirty-two municipalities drew the bulk of their income from octroi. The Chief Commissioner has taken up the question of the reform of octroi taxation, and has prescribed general rules based upon the orders of the Government of India which have been issued from time to time since 1868.

While favouring the principle of self-government, the Chief Commissioner considers it important not to sacrifice the health and material well-being of the people to the maintenance of advanced forms of administration for which a town or locality is found not to be ripe; and he is disposed to think that in some of the smaller towns more, and not less, official interference is what is really wanted.

The work done by district councils and local boards is regarded, on the whole, with satisfaction. It varies a good deal in quality, depending largely on the energy of individual members. The best work of the boards has been done in the Educational Department. To them has been entrusted, since 1885, the management of all rural schools, and these schools continue to make steady progress. Village sanitation also is stated to be receiving increased attention.

Four new municipalities were constituted in Lower Burma during the year, raising the number to 22. With the exception of Moulmein, Thaton, and Tavoy, the financial condition of all the municipalities was satisfactory. The total receipts of all the municipal funds amounted to Rx. 360,818 and the expenditure, to Rx. 366,298. Of the income, Rx. 259,755, and of the expenditure Rx. 268,370 belonged to Rangoon. The financial relations between provincial and municipal funds were readjusted at the beginning of the year. The most important event connected with the municipal history of the year was the adoption by the Rangoon Municipality of an elaborate scheme for the drainage of the town. To enable the work to be taken in hand, a loan of Rx. 230,000 was raised by the municipality during the year. As in previous years, Municipal Committees administered the medical and educational affairs of the towns which they represented, and undertook various works to promote the health or convenience of the townspeople.

Burma.

Towards the end of 1886 the Government of India were moved to sanction the extension to Mandalay of the Municipal Act in force in Lower Burma. After some discussion it was decided that the Burma Municipal Act was too elaborate a measure for the needs of a newly acquired province, in which comparatively little progress had yet been made in settling the administration. A Regulation providing for the establishment of municipalities in the more important towns, and defining briefly but comprehensively the powers, duties, and responsibilities of Municipal Committees, was proposed by the Chief Commissioner and assented to by the Governor-General in Council in July 1887. Steps were at once taken to introduce municipal administration into Mandalay, where the need was most pressing, and into other towns, where there was a prospect that the income of the municipal fund would suffice for the wants of the town. The Mandalay Municipality was constituted on the 22nd July 1887, and since that date 15 other municipalities have been established in Upper Burma.

The Regulation provides for the appointment and not for the election of members of Municipal Committees. It is not considered that sufficient progress has yet been made to justify the introduction of the elective system. The Committees consist of the chief Civil Officer of the town, the Civil Surgeon, the Executive or Assistant Engineer, and a number of the leading Native officials and non-officials. In military stations the officer commanding, if he is willing to become a member, occupies a seat on the Committee. It has been decided to credit to municipalities receipts from the following heads of revenue collected within their limits:—

- Rent of fisheries within municipal limits.
- Bazaar rents.
- Slaughter-house fees.
- Fines under the gambling and excise laws.

MUNICIPALITIES
AND LOCAL
BOARDS.

In addition to these assigned funds, municipalities receive taxes levied under the regulation, and fines imposed for the breach of municipal rules. Most municipalities have imposed taxes, which have usually taken the form of a house tax.

So far as can be judged the members of the committees take an active and intelligent interest in the affairs of their towns. In Mandalay especially the Burmese and Indian gentlemen who have been appointed to the municipal committee have shown much aptitude for the administration of local affairs, and a desire to discharge their duties as representatives of the people of the town with diligence and discretion. Municipal institutions are not foreign to the genius of the Burmese people. In the case of important towns they fill the place occupied in the rural parts of the country by the village organisation.

Madras City.

The receipts of the Madras Municipality were Rx. 111,867, which included a loan of Rx. 10,600, and a contribution from provincial funds of Rx. 2,275. The expenditure amounted to Rx. 125,717.

The chief work of the year was the extension of the Municipal Office premises. A sewer was completed, the length laid consisting of 946 feet of 18" stone-ware pipes; this work was of a somewhat delicate nature as the sewer passes through a narrow street lined by high buildings, but no damage of any sort was caused to the adjacent properties. Two outfall drains were successfully completed in the Broadway with the object of preventing water standing in this locality on the occasion of heavy rainfall, a nuisance that has been felt for many years. The work of widening Andiappa-street, which was undertaken in connection with the surface drainage scheme, made good progress, but the cost incurred amounted to Rx. 3,628, the acquisition of the marginal properties having proved very expensive. During the year about 17 miles of drains of all sizes were constructed, making a total up to the end of the year of over 56 miles. Many house-drains were altered and repaired, and side-drains were constructed in a large number of streets.

Madras
Presidency.

The number of municipalities administered under the District Municipalities Act IV. of 1884 was, as in the preceding year, 54. The total number of municipal councillors was 870, against 850 in 1886-87. Of this number, 54 were members *ex-officio*, 445 were nominated by Government, and 371 elected, or, including official members elected by the ratepayers, there were 201 official and 669 non-official members. Classified according to race, there were 173 Europeans and Eurasians and 697 Natives, against 170 and 680, respectively, in 1886-87. The elective system was in force in 34 towns, being one more than in the previous year. The privilege was newly extended to Srirangam, but was not exercised during the year. The right of electing their own chairmen was enjoyed by 40 municipal councils, against 39 in the previous year. The total municipal receipts, excluding the opening balances, amounted to Rx. 168,157, and were more than Rx. 5,000 in excess of those of 1886-87. The increase occurred chiefly under the tax on buildings and lands, income from miscellaneous sources, and contributions from provincial and local funds. The total expenditure of the year amounted to Rx. 162,950, against Rx. 157,297 in 1886-87, the increase occurring chiefly under public works, hospitals and dispensaries, conservancy and supervision, counterbalanced to a certain extent by a decrease under contributions to provincial and local funds.

Bombay City.

On the occasion of the presentation by the Chairman of the Bombay Corporation of an address of congratulation to the Queen on the celebration of the Jubilee of Her reign, Her Majesty was pleased to use the following words in Her reply: "I have watched with pleasure the progress of the great City of Bombay, and its advance, not only in material prosperity, but also in education, and in matters tending to the improved health and comfort of the people."

The total municipal revenue of the year under report was Rx. 516,653, and the expenditure Rx. 581,269.

Progress was made with the Tansa water supply project. The Vehar and Tulsi lakes overflowed early during the monsoon; and measures were adopted towards the end of the year with a view to prevent a leakage of nearly

nearly $1\frac{1}{2}$ million gallons a day from the waste weir and one of the dams of the former lake. New mains, exceeding 12 miles in length were laid down in different parts of the city to meet the wants of a growing population. An increased staff of inspectors enabled the municipality to detect and prevent a waste of $1\frac{3}{4}$ million gallons of water daily, in addition to the waste of over half a million gallons a day prevented in 1886.

MUNICIPALITIES
AND LOCAL
BOARDS

The Mofussil municipalities numbered altogether 153. Those in Sind decreased from 29 to 26, three having been abolished owing to the amendment of octroi schedules rendering their existence impossible.

Bombay
Presidency.

The aggregate income was Rx. 347,956, of which nearly one-fifth, viz., Rx. 73,645, was spent on conservancy, against Rx. 33,876 in the previous year.

The question of improving the water supply received much attention in Ahmedabad, the municipality of which city resolved to adopt, at a cost of Rx. 60,000, a scheme recommended by Colonel Ducat, and applied to Government for permission to raise funds in the open market. At Ahmednagar an old aqueduct was discovered, and the municipality has resolved to utilise it, at a cost of Rx. 1,200, as a feeder to one of the aqueducts already in use. At Rajapur the municipality has resolved to replace by an iron main the stone channel through which water has been brought to it from the Kadauli river. In Karachi the municipality has spent Rx. 1,527 in extending the waterworks, and has placed the water within reach of the very poor population in the trans-Lyari district.

Appended to this chapter is a table showing the income and expenditure of the municipalities in the various provinces.

MUNICIPAL
FINANCE.

STATEMENT showing the Number of Municipalities in India, their Receipts and their Expenditure, for the Year 1887-88.

	Bengal.		Madras.		Bombay.		Punjab.	North Western Provinces and Oudh.	Central Provinces.	Assam.	Lower Burma.	Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.							
Number of Municipalities	1	141	1	54	1	153	161	109	59	14	22	10	326
Population	401,671	2,695,513	405,848	1,445,202	773,196	1,872,206	2,016,267	3,229,679	690,426	81,501	408,507	188,739	14,207,872
Receipts:													
Octroi	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Other Taxation	289,219	213,994	75,572	1,09,092	322,156	93,886	13,773	32,605	5,973	6,302	86,856	2,334	752,559
Sources other than Taxation (excluding Deposits and Advances).	115,323	56,863	25,395	53,784	96,882	88,448	82,974	68,150	27,064	5,625	151,825	8,680	1,252,662
Loans	157,850	-	10,000	5,700	490,000	30,671	8,950	3,325	100	-	55,067	-	750,888
TOTAL	562,392	270,857	111,267	168,576	946,224	355,443	329,896	293,920	79,984	12,127	293,748	32,763	3,457,197
TOTAL (1886-87)	572,887	270,556	113,245	162,555	660,069	331,423	349,632	288,543	82,363	11,034	218,039	34,766	3,095,111
Expenditure:													
Cost of Collection and Administration	24,475	33,493	8,845	14,730	39,988	36,114	44,414	36,614	12,173	1,466	18,796	5,930	275,000
Public Health	298,526	127,234	78,931	75,840	404,481	128,322	100,513	110,988	37,462	5,377	79,583	9,757	1,466,014
Public Safety	55,294	22,592	3,260	7,326	61,697	21,683	56,186	43,756	1,077	675	50,632	3,714	303,892
Public Convenience, including Streets and Roads	31,484	63,665	15,875	30,086	58,632	57,643	53,610	83,503	13,909	3,440	74,535	6,086	500,467
Repayment of and Interest on Debt	80,673	1,242	10,546	1,396	142,002	7,602	12,125	917	2,480	71	12,913	592	272,420
Miscellaneous	77,052	25,554	2,800	32,528	144,854	77,537	57,595	18,870	15,043	784	40,742	5,769	499,144
TOTAL	567,504	273,790	120,257	162,806	851,654	328,901	339,452	341,548	82,240	11,813	247,101	31,848	3,319,614
TOTAL (1886-87)	489,771	268,555	112,640	156,891	598,779	321,508	366,001	279,885	64,331	12,194	211,902	34,144	2,934,591

SANITATION.

According to the Report of the Sanitary Commission^{SANITATION.} with the Government of India for 1887, the average strength of the European troops on service in India in that year was 63,315. The troops enjoyed better health^{European troops.} than in 1886, the admissions into hospital per 1,000 of average strength having declined from 1,514 to 1,370, the daily sick-rate from 75 to 70, the invaliding-rate from 23 to 21; and the death-rate from 15.18 to 14.20. Compared with the decennial average of 1870-79 the admission-rate of 1887 was 105 per 1,000 less, and the ratio of mortality 5.14 per 1,000 lower. Enteric fever, though less prevalent than in 1886, continued to rank as the chief cause of death, the ratio being 3.76 per 1,000 against 5.08. In all three presidencies the mortality under this head was smaller in the year under notice than in 1886. Statistics continue to demonstrate the liability of young and unacclimatised soldiers to this disease. Amongst men in the first and second years of their residence in India the number that died from enteric fever equalled 7.13 per 1,000, while the deaths among those in their third to sixth years were 2.37 per 1,000 of strength. On the other hand, cholera was much more prevalent and fatal, the death-rate reaching 2.00 per 1,000, against 0.49 in 1886. Of 183 admissions to hospital from this disease 127 or 69 per cent. died, and of the total deaths 92 or 72 per cent. occurred in the Bengal Army.

The number of men invalided during the year amounted to 1,443, equal to 22.57 per 1,000 of average strength, against 1,303 or 21.10 per 1,000 in 1886. This, however, is not an exceptional ratio, and the slight increase was due to a larger number of invalids under 25 years of age, the percentage at this age having risen from 43.92 to 49.41. All three presidencies contributed to the increase, but it was most marked in Madras, owing chiefly to venereal diseases, injuries, and dysentery. Of the total number invalided 37 per cent. were discharged as unfit for further service, against a percentage of 41 in 1886.

On the whole the health of the Native Army of India in 1887 was more^{Native Army.} satisfactory than in the previous year. There was a slight increase in sickness, the admission and daily sick-rates having risen from 973 and 31 per 1,000, respectively, of average strength in 1886 to 1,045 and 33, while the death-rate declined from 13.27 to 11.68. The increased sickness was chiefly due to intermittent fever, the admissions from which rose from 388.9 per 1,000 to 472.6. Notwithstanding the serious prevalence of cholera during the year, the native troops suffered very little more than in the previous year, the deaths having increased only by three, viz., from 135 or 1.27 per 1,000 of strength to 138 or 1.31 per 1,000. Respiratory diseases, though still the chief causes of mortality, were not so fatal as in 1886, the number of deaths (324 or 3.08 per 1,000) being fewer by 66. The excessive mortality under this head, and the low mortality from enteric fever (0.14 per 1,000), are in marked contrast with the low death-rate from respiratory diseases (0.68), and the high death-rate from enteric fever (3.76), in the European Army.

The general health of the jail population of India was not so satisfactory^{Jails.} as in 1886. With a decrease in the average strength from 75,876 to 70,831 the admission-rate rose from 927.36 to 946.83, the daily sick-rate fell from 32.04 to 31.80, and the death-rate increased from 33.34 to 35.48. The rise in mortality is accounted for chiefly by the increase in cholera deaths from 131, or 1.73 per 1,000 of strength, to 325 or 4.59. The increase occurred principally in Burma, the Punjab, North Western Provinces and Oudh, and the Central Provinces. The jails in Lower Bengal were singularly free from cholera during the year. The most satisfactory feature in the health statistics was the improvement in the Bombay, Lower Bengal, and Assam jails. In Bombay the ratio of mortality (19.69) was nearly 10 per 1,000 lower than in 1886; in Assam it declined from 54.54 to 28.03; and in Bengal the death-rate (32.73) was the lowest on record. The highest death-rate was returned by the Central Provinces jails, viz., 65.77, which is nearly double the average of the jail mortality of all India. It is stated that the administration of the jails of these provinces has been subjected to

SANITATION.

a thorough scrutiny by the Chief Commissioner, and hopes are entertained that the results will soon be apparent in a diminution in the rate of mortality.

General population.

Little or no improvement appeared in the registration of births and deaths among the general population during the year. In Berar and the Central Provinces the recorded birth-rate exceeded 40 per 1,000 of population; in the Punjab, North Western Provinces and Oudh and Bombay it reached 38 per 1,000; and in the remaining provinces it varied between 14.48 in Coorg and 31.0 in Madras. In eight of the 11 provinces the birth-rate exceeded the death-rate, those in which the reverse was the case being Bengal, Berar, and Coorg. The approximate death-rate for all provinces combined was 27.8 per 1,000, against 25.8 in 1886 and 25.0, the mean of the previous five years. Excluding Mysore and Coorg, the statistics of which are reported to be quite unreliable, only two provinces (Assam and the Central Provinces) recorded a lower mortality than in 1886. Berar registered the highest death-rate, viz., 45.3 per 1,000, followed by the North Western Provinces and Oudh with 35.86, the Punjab with 34.31, and the Central Provinces with 32.70; in the remaining provinces the mortality ranged from 27.67 in Bombay to 16.18 in Lower Burma.

Cholera prevailed more extensively among the general population than in any year since 1877. The total registered deaths amounted to 488,788, against 208,371 in 1886 and 385,928 in 1885. Excepting Assam, the Central Provinces, and Lower Burma, all the provinces recorded a higher mortality than in 1886, the increase being most marked in the North Western Provinces and Oudh, where the cholera deaths rose from 34,565 or 0.78 per 1,000 to 200,628 or 4.54 per 1,000. Berar also suffered very considerably, the deaths having risen from 976 or 0.4 to 14,396 or 5.5. In 1886 Assam suffered more in proportion than any other province, but in 1887 there was a great diminution in the rate of mortality, viz., from 4.47 to 1.75 per 1,000.

Small-pox was also more fatal than in 1886, the recorded deaths having increased from 51,097 to 65,755. Every province, except Bengal and the North Western Provinces and Oudh, contributed to the increase, but especially the Punjab and Madras; in the former the deaths rose from 10,770 to 16,382, and in the latter from 17,129 to 21,472.

Nearly 66 per cent. of the total mortality of the year was registered under fevers. The deaths numbered 3,581,623, or 110,869 in excess of those of 1886, which was more than covered by the increase of 111,731 in the Punjab. This was the only case in which there was any very remarkable difference between the mortality of the two years. The Sanitary Commissioner with the Government of India remarks that "a slight increase is to be expected in all provinces as the result of improved registration." Several provinces showed a decrease in mortality, notably the North Western Provinces and Oudh, whose fever death-rate declined from 27.58 in 1886 to 25.76 per 1,000.

From bowel complaints there were 290,548 deaths, against 264,499 in 1886. According to provinces the only variation of any moment was in the case of Berar, where the deaths numbered 21,530 or 8.2 per 1,000 against 16,791 or 6.4 in the previous year.

Vaccination.

Progress continued to be made in vaccination work. In every province more persons were vaccinated than in the previous year, and the average number of operations performed by individual vaccinators was greater. The number of persons successfully vaccinated during 1887-88 at the special vaccination and dispensary establishments combined was 5,211,274, of whom 2,022,835 were children under one year of age, and 2,512,851 were above one and under six years old. In all provinces except Berar the ratio of successful vaccinations per 1,000 of population showed an increase. The best results were recorded by the Central Provinces, the ratio being 36.49, and in the remaining provinces the ratios varied from 35.2 in Berar to 14.93 in the North Western Provinces and Oudh. The proportion of the successful vaccinations of infants to estimated births was greater in all the provinces except Assam. Berar returned the highest percentage of successful vaccinations, viz., 75.5 for every hundred births; the Punjab and Bombay followed with 59.1 and 57.0, in the remaining provinces

provinces the percentages varied from 42·4 in the Central Provinces to 11·1 in Burma. SANITATION.

In most of, if not in all, the provinces of India the progress of sanitation is slow. Several important improvements in the way of water supply and drainage were, however, either executed or undertaken during the year. Sanitary works.

In Bengal the chief sanitary works, completed or in progress during the year, were the drainage of Dinagpur town at the expense of the Maharaja, the Bhagalpur waterworks, an extension of the Calcutta waterworks and drainage, and the Sulpai drainage works in Midnapur. A sum of Rx. 13,904 was also spent during the year by charitably disposed persons on works of public utility in the province, the main portion (Rx. 9,115) being expended on the improvement of water-supply. In the Madras Presidency no sanitary work of magnitude was executed. In the Bombay Presidency the most important works were the Ahmedabad water-supply project, to cost Rx. 60,000, the improvement of the water-supply of Ahmednagar, the commencement of building waterworks at Yeola, the Bombay waterworks extension, and the drainage schemes of Karachi city, Hyderabad and Sukkur. In the Punjab improvements were made in the drainage works of parts of the Rohitak and Lahore districts, a general drainage scheme for Karnal district was in progress, the drainage of Gujranwala city was taken in hand, and at Rawal Pindi the waterworks were completed, and plans and estimates were ready for building up the main drain of the town with masonry through its entire length. In the North-Western Provinces and Oudh the Dehra Dun waterworks were nearing completion, a scheme for drainage and waterworks was under the consideration of the Benares municipality, an expenditure of Rx. 120,000 was sanctioned for waterworks at Allahabad, the drains of Saharanpur were completed at great outlay, the drainage of Sambhal city was being improved at considerable expense, at Ballia and several other places drainage schemes were carried out, and a most important drainage project, known as the Karwan Nadi Improvement, was being carried out to relieve waterlogged tracts on the canals of the Muttra and Agra districts. In the Central Provinces 266 new wells were constructed. In Berar progress was made with the Amraoti waterworks, and a scheme for supplying the town of Akola with pure water was under consideration. In Assam and Burma there was little to record except that a commencement had been made with the sewage works and reclamation of low lying lands in Rangoon; these sewage works are all being constructed on Shone and Ault's pneumatic principle, which has been successfully applied at Eastbourne and Henley in England, and is specially suitable for very low lying places like Rangoon city.

The question of rural sanitation also received a good deal of attention, in accordance with the rules laid down by the Government of India in an important Resolution which they recorded on 27th July 1888 on the "practical application of sanitary principles to towns and villages in India." This Resolution is printed in full on pp. 38-42 of the Report on Sanitary Measures in India in 1886-87 (C. 5533).

CRIME AND POLICE, CRIMINAL JUSTICE, JAILS, AND CIVIL JUSTICE.

CRIME AND POLICE.

CRIME AND POLICE.
Police Organisa-
tion.

A BRIEF sketch of the organisation of the Indian Police was given in the 19th number of this series (for the year 1882-83). It is sufficient to say here that the Indian Police is a highly organised force, with a semi-military training, under its own officers, subject to a general control by the magistracy and the Local Governments, and that it is charged with the maintenance of law and order and the detection of crime throughout the Empire. With slight local variations its head officers are Inspectors General, who are assisted by two or more Deputies, District Superintendents, and Assistant District Superintendents. The constitution of the force effected in 1861 contemplated a European officer being placed at the head of the police in each district, with an assistant where necessary; and this practice, with few exceptions, has since been maintained. For some years after its constitution the higher grades of the force were largely recruited from the commissioned ranks of the army. Owing to various causes, however, this has ceased to be the case, and recruitment from other sources than the army for the grade of Assistant District Superintendent has become the rule of the service. In most provinces the recruitment of these officers is made by nomination pure and simple, followed by a period of probation during which certain test examinations must be passed.

Statement No. 30,* in the Annual Statistical Abstract relating to India, shows the strength, cost, distribution, and employment of police in each Presidency or Province.

Besides the regular or stipendiary police force, the ancient institution of village police survives almost universally throughout India. The village police are remunerated either by fixed salaries, as in the North Western Provinces and Bengal, or by grants of land or share of the crops, or by fees, &c. In Bengal an Act passed in 1873, with a view to improving the condition of the village police, having proved a failure, an Act (Bengal Council No. 1) was passed in 1886 amending it. One of its chief objects was to provide for the more certain and regular payment of the salaries of the men.

Classification of
Offences.

In reference to the action of the police, crimes are broadly divided into "cognizable" and "non-cognizable." As defined by the Criminal Procedure Code of 1882, cognizable offences mean offences for which a police officer may arrest without warrant; and non-cognizable offences mean those for which he cannot arrest without a warrant. The former consist as a rule of grave offences against the person, property, or the State; and are mostly cases in which the magistracy are instructed ordinarily to issue a warrant in the first instance for the apprehension of the offender. The latter are minor offences, for which the magistracy are directed ordinarily to issue summonses.

Crime.

In the Twenty-second number of the Statistical Abstract relating to India, a statement (No. 29) is given at pages 60 and 61 of the numbers of some of the principal offences reported to have occurred in each Province in 1887-88; and the total numbers of such offences for the whole of India are shown for a series of years.

* Pages 62 to 65 of the Twenty-third number of the Statistical Abstract.

An increase in crime throughout India was noticed in the Report for 1886, and the statistics as to the number of convicts admitted to the jails point to a further increase in 1887. The number of convicts unreleased at the beginning of 1887 was 70,592, and 154,629 were admitted during the year, as compared with 150,108 in 1886. The number in jail at the end of the year was 69,468; 22,918 (excluding about 400 released from Port Blair) were given their discharge on the occasion of the Jubilee, of whom 6,282 would under ordinary circumstances have been still in jail at the close of the year. From a special report made to the Government of India on the subject it appears that that act of clemency did not contribute in any considerable degree to the amount of crime during the year. The proportion of the members of the different religions sentenced to imprisonment to the total jail population is thus compared with the proportion borne by them respectively to the total population of India:—

	Ratio per Mille of each Class of Convicts to Total Convict Popula- tion in 1887.	Ratio per Mille of Convicts Admitted in 1887 to Total Free Population of each Class in India.
Christians	14.4	1.9
Muhammadans	274.9	6.9
Hindus and Sikhs	617.3	0.6
Jains and Buddhists	70.7	2.8
All other Classes	22.7	0.6

The variations in the previous occupations of persons who were sentenced to imprisonment are, on the whole, not important, but there was a considerable decline both in the number of persons engaged in service and of the number engaged in commerce and trade who were sentenced. In 1886 there was an increase of 5,528 in the number of agriculturists, and this was followed in 1887 by a further increase of 3,078, which occurred almost entirely in the North-Western Provinces and Oudh, the Punjab, and the Central Provinces. Prices were high during the year in these provinces, with the natural result that more persons of the class referred to were convicted of petty crime.

Though not so successful as in the previous year, the police in Ajmere worked well. The total number of cases investigated amounted to 2,822, of which 1,948 were prosecuted to conviction. Rules for the better organization of the village police were introduced.

The number of cognizable cases reported to the police in Berar in the year was 7,803, showing no wide divergence from the average. Murders and dacoities, however, were greatly in excess of the number reported in the previous year. The number of non-cognizable cases reported was 5,252. The total strength of the police force employed in the province was 2,822. A decided improvement in their conduct and discipline is reported.

In Coorg there was again a slight increase in the number of cognizable cases. The percentage of the value of property recovered to the value of property reported to have been lost or stolen fell very considerably. The percentage of police cases ending in conviction to cases investigated was 19.15. There was no change in the constitution or strength of the police force. In Bangalore there was a slight increase in crime, and a considerable increase in the amount of property stolen.

Offences cognizable by the police decreased by 3,824. The proportion of cases slightly increased, but only 22.4 per cent. of such cases were prosecuted. The number of murders fell by 28, but, on the other hand, the number of cases of culpable homicide, 217, was larger than in any previous year.

CRIME AND POLICE. year since 1880. Convictions were obtained in the case of 28·5 per cent. of the persons charged. There was a decrease of 569 cases under the head of serious offences against property. The total number of cases of mischief by fire was 373, of which 36 were committed in Dinagepore, this form of terrorism being employed by the professional criminals in that district to overawe villagers, and to prevent them from reporting crime and giving evidence. The total number of offences, cognizable and non-cognizable, reported in the town of Calcutta, increased from 53,940 to 55,092. The increase was mainly under the head of public and local nuisances and miscellaneous street offences. Of 55,175 persons arrested and summoned, 48,334 were convicted. The value of the property stolen was Rx. 12,235, as against Rx. 11,924 in 1886, while the percentage recovered, 51·50, was almost normal. The ratio of cognizable crime to the population was one to 18·71. There were, as in 1886, only two murders, as against an average of six for the last five years.

The total strength of the police in Lower Bengal, including railway police, was 23,356. The cost of the men who were employed on purely police work is estimated at Rx. 260,594, or 7·6 pies per head of population.

It appears from a statement prepared by the Inspector General of Police that during the year Bengal had in its pay fewer policemen and had less cognizable crime in proportion to its population than any other province in India, and that the North-Western Provinces and Madras have a police establishment twice as numerous, and the Punjab and Bombay one three times as large, in proportion to their respective populations, as that employed in Bengal. The amending Act 1 (Bengal Council) of 1886 does not seem to have affected much improvement in the working of the village police. Measures are being taken with a view to bringing this force into closer association with the regular police.

Assam.

The number of criminal offences reported in Assam during the year was 28,751, an increase of nearly 1,000 over the previous year. The increase was confined to the five districts of Assam proper, a decrease having taken place in Cachar, Sylhet, and Goalpara. The increase took place under almost all the chief heads of crime under the Penal Code except theft.

The regular police force of the province is divided into two branches: one, the ordinary police employed in the prevention and detection of crime, &c., and the other the frontier police, a body with a somewhat higher military organization who hold the frontier posts, and keep the peace in those hill districts which possess a population of a turbulent disposition. At the close of the year the actual strength of the Frontier Police Force was short of its sanctioned number by 81 officers and men. The force is not a popular one, and it is proposed to stimulate recruitment by improving the leave rules. The drill and discipline of the force continue to be favourably reported on. The civil police call for no special remarks.

**North-Western
Provinces and
Oudh.**

The returns for both the North-Western Provinces and Oudh showed a material increase in the reports of cognizable crime. There can be little doubt that the greater part of it was due to the straitened condition of the poorer classes owing to deficient harvests and the high price of food-grains. As regards offences dealt with by the police in the North-Western Provinces there was no cause for complaint, the success of the police in the detection and prosecution of crime having been steady. Rioting was very prevalent in some districts, and the number of cases of dacoity reported was the highest on record since 1880. The increase in the latter crime was due in part to the incursion of gangs of professional dacoits from Gwalior and Bhartpur. The revised system of organised action for the detection and prevention of cattle-theft proved successful. Considerable improvements were effected in the method of surveillance over time-expired convicts, and more attention was paid to the identification of convicts previously convicted.

The tribes proclaimed under Act 28 of 1871 were the Sanauriahs of Lalitpur, the Aheriahs and Haburahs of Etah, and the Barwars of Gonda. The results of the management of the Sanauriahs continued to be by far the most satisfactory, and there appears ground for the belief that the eventual reclamation of the entire tribe may be secured. A census of the Aheriahs was taken during the year, and a census of the Haburahs of Etah was ordered.

In the Report for 1886-87 the increase of crime, especially serious crime, in the Punjab, was noticed. The returns for the year 1887-88 show a further increase of 6,689 cognizable offences compared with the previous year. Owing to the difficulty of discriminating between true and false cases as the returns are compiled in the Punjab, the increase looks greater from these figures than it really is, but there can be no doubt that there has been a serious increase of crime in the province. The most important increase was in the number of murders, which has risen steadily from 347 in 1884, to 547 in 1887. The number of murders committed in the Peshawar District was lower than it had been in any year since 1884, but in some of the other frontier districts, notably in Hazara, Kohat, and Bannu, the number has increased. There has also been a serious increase in the number of offences against property during the past three years. The state of crime in the province has occupied the anxious attention of the Lieutenant Governor, and proposals for the purpose of dealing more effectually with the evil are now under his consideration, and in certain districts action was taken by the magistrates and police officers during the year under report, which is believed to have effected considerable improvement. The new Punjab Frontier Crimes Regulation of 1887 was extended to the districts of the Peshawar Division on the 10th of March 1887, and to the Trans-Indus portions of the Derajat on the 17th of June 1887. The working of the police showed a slight improvement during the year, notwithstanding the increase of crime. The percentage of cases in which convictions were obtained was 24 in 1887, as compared with 23 in 1886. With reference to criminal tribes considerable improvement is reported amongst the Minas, and somewhat favourable reports have been recorded regarding the Samis and the Bauriahs of the Ludhiana and Ferozepore Districts. The Tagus and the Biluchis of the Karnal District, however, and the Harnis of Ludhiana, have in no way improved.

The chief feature in the Police returns of the year in the Central Provinces, is a large increase of petty burglaries and thefts reported consequent upon the continued pressure of high prices on the lower classes of the population. There was also an increase in the number of serious offences against the person (1,203 against 1,160), but under this class there was a considerable decrease in the number of murders, of which there were 102 true cases, against 125 in the previous year. The police were more successful in dealing with these cases than in that year, but their action in dacoity cases was far from satisfactory. The percentage of cognizable cases convicted to those investigated improved; but, on the other hand, the percentages of persons discharged to persons arrested, of persons put on trial to arrested, and of persons convicted to arrested, declined. Although the general results of police action, preventive and detective, are not nearly so good as could be wished, there are indications of improved administration, and the control of the police over the criminal classes is fairly efficient.

There was a considerable variation in the number of crimes of the several classes committed in Lower Burma in 1887, as compared with the number committed in 1886. Serious offences against the person and property decreased by 939; minor offences against property, and miscellaneous offences, for the most part of an unimportant character, increased by 1,613. These figures indicate the change which took place in the province during 1887. During 1886 most of the districts in the province were the scenes of risings, often of a semi-political character, which in many cases were not quelled without the assistance of troops. During 1887 comparative tranquillity was restored in all except two districts. Violent crime continued prevalent to an extent altogether out of proportion to its prevalence in the years preceding 1886, but its character underwent a considerable change, and was for the most part committed by comparatively small gangs.

The percentage of cases convicted to cases reported rose from 50 to 54, and of persons convicted to persons arrested from 62 to 63. The number of cases of dacoity and robbery in which convictions were obtained rose from 453 to 525, although the number of cases which occurred fell from 2,895 to 2,002.

The condition of the Lower Burma Police force was not entirely satisfactory during the year. The experience gained by the disturbances in 1885-86

CRIME AND POLICE.

1885-86 showed the necessity of strengthening the Burmese portion of the force which had become enervated by long immunity from the necessity of dealing with formidable opponents. The measures taken to afford support to this part of the force, namely, the addition of considerable numbers of Indians, not always of the best type, had not tended to check the deterioration of the Burmans, and on the whole, the Burmese police were not successful in dealing with dacoits. The Indian portion of the force was to some extent reorganized during the year, and it is intended to convert it into a body of trained military police, under rules similar to those in force in Upper Burma. Police action in respect of the detection and prosecution of offenders was somewhat more successful than in the preceding year, but still nearly half the total number of reported cases remained undetected, and more than one-third of the persons arrested were acquitted or discharged.

Upper Burma.

In consequence of the unsettled state of Upper Burma in 1887, police officers and magistrates had little time to spare for the preparation of the various returns as to crime, which are in use in settled provinces. On an examination of such criminal statistics as were prepared, it appears that the district which returned the greatest amount of crime during 1887 was Mandalay. This was due to the fact that the town of Mandalay was undisturbed during the year, and that crimes were reported and inquired into in much the same way as in Lower Burma. In the rest of the northern division comparatively little crime was committed. Bhamo and Myadaung were undisturbed throughout the year. For the first half of the year Shwebo was in a state of disorder, and the machinery for receiving reports of and inquiring into crime had not been properly organized. A considerable amount of crime was shown in the central and southern divisions. Most of these districts were much disturbed during the year. The districts of the Eastern division, which had been reduced to comparative tranquillity by the middle of 1887, showed less crime. With the exception of robbery and dacoity but little crime was committed in this division. In Upper Burma the organization of the police force was pushed on with vigour and success during the year. The Indian Military Police were raised from 5,000 to over 13,000. This force under military officers took its share in the pacification of the country. Their conduct in the field was invariably good, and concerning their conduct towards the people of the country there was no general ground of complaint. Much progress was made in organising the civil police, which had practically been non-existent at the beginning of the year. The attempt to form a body of local military police was abandoned, but the civil police, which consists entirely of natives of Burma, were subjected to drill and discipline, and care was taken that this portion of the force should be made self-reliant and capable of taking a part in operations against dacoits. The Burmese police have done good work and have on the whole behaved well.

Madras.

The number of known depredators, suspects, and wandering gangs registered during the year was 65,663, against 78,006 in 1886. More than 100,000 cognizable offences under the Indian Penal Code and special and local laws were dealt with during the year, and 68·2 per cent. prosecuted to conviction. Nearly 150,000 persons were arrested and 59·6 per cent. were convicted. Of the property, valued at 13½ lakhs, reported to have been lost, about 2½ lakhs worth was recovered. There was a slight improvement in the number of convictions to arrests over the rate in the preceding years. Madras city shows the highest percentage in detection. The total number of murders reported was 293, against 248 in 1886; of these, 94 were successfully prosecuted to conviction, while in 53 cases the murderers committed suicide. The number of dacoities reported was 169, against 128 in the preceding year, more than half the total number being torchlight gang robberies. Of 262 robberies reported, 95 were detected, against 220, with 111 detected, in 1886. There were 6,300 housebreakings recorded, against 5,931 in the previous year, and 2,206 were detected. There was a slight increase in cattle thefts, and a decrease in cattle poisoning and in ordinary thefts.

The strength of the police at the end of the year was 23,089 and the proportion of police to population, exclusive of the force employed on State services, was one to 1,464, while the proportion of police to area was one to six square miles. There was an improvement in the conduct of the police,

police, and the proportion of men able to read and write has been steadily increasing. CRIME AND POLICE

Exclusive of Aden, for which full details are not available, 52,276 cognisable and 63,759 non-cognisable cases were reported during the year, against 68,657 and 62,314 cases respectively in the previous year. In connection with the former class of cases 70,016 persons were arrested or appeared on other process before the courts, against 76,357 in the previous year, and 50,633 persons were convicted, against 57,262. In connection with the latter class 112,115 persons appeared before the courts, against 113,964 in 1886, and 23,549 were convicted, against 24,267. Thus on the whole there was a decrease during the year in the returns of crime as regards cases, offenders, and convictions, especially in the class of crime with which the police are chiefly concerned, namely, cognisable crime. In Sind there was a decrease in kidnapping, but an increase in housebreaking and in cattle theft. In the Northern Division of the presidency there was a slight increase of cognisable crime, attributed to the unfavourableness of the season but there was a large decrease, though not in serious crime such as dacoities in the Central and Southern Divisions. In the city of Bombay cognisable crime diminished on the whole, but there was an increase in cases of house-breaking. The police of the city maintained their reputation for detective ability. Of the three great railway systems of the presidency, cognisable crime diminished on the Great Indian Peninsula and the Bombay, Baroda, and Central India Railways, and increased on the Southern Mahratta Railway.

The total strength of the police forces employed throughout the presidency of Bombay, including Sind and Aden, was 22,013 officers and men, against 21,905 in the previous year. Difficulty was again experienced in obtaining suitable recruits on the existing rates of pay for the mofussil and Bombay city police. Taking subordinate officers and men together, 33.16 per cent. of the mofussil police were able to read and write. In the Bombay city police only 24.5 per cent. of the officers and men, taken together, could read and write.

CRIMINAL JUSTICE.

Criminal Justice is administered in India by (1) the High Court, the

The principal Court of Appeal and Revision is:—

In Bengal and Assam, In Bombay, In Madras, In North Western Provinces, } The High Court.

In the Punjab, the Chief Court. In Sind, In Oudh, In Central Provinces, In Hyderabad, In Burma, the Recorder's Court and the Judicial Commissioner. } The Judicial Commissioner.

Chief Court, the Recorder's Court, or the Court of the Judicial Commissioner, as the case may be; (2) the Courts of Sessions; and (3) the Courts of the Magistrates (of the various classes).

In the presidency towns the High Court on its original side tries (usually by a single judge), with a jury, all cases committed to it by the presidency magistrates, and also certain other cases in which the accused are European British subjects and are committed for trial by magistrates in the interior. On its appellate side the High Court (usually by a bench of two or more judges) disposes of appeals in respect of convictions on trials before a court of session. It revises, of its own motion or upon reference from sessions judges or magistrates, the decisions of inferior courts when error in matters of law is suggested; and it confirms, modifies, or annuls all sentences of death passed by sessions courts; such sentences requiring by law confirmation by two judges. The High Court itself may pass any sentence authorised by law. The Judicial Commissioners exercise within their own provinces the same powers as High Courts, except in some points regarding the trial of Europeans. The courts of sessions are presided over each by a single judge, who tries, with the aid either of a jury or of assessors (as the case may be), all cases committed to him by magistrates, and decides, sitting alone, appeals from the decisions of magistrates of the first class. The sessions judge may pass any sentence authorised by law; but every sentence of death is subject to confirmation by the High Court. The assistant sessions judge cannot pass sentence of death, or of transportation, or of imprisonment for more than seven years; but any sentence

CRIMINAL JUSTICE.

Administration.

CRIMINAL
JUSTICE.

tence of imprisonment for more than three years is subject to confirmation by the sessions judge. The powers of a magistrate of the first class extend to sentencing offenders to imprisonment, either rigorous or simple, up to two years, including solitary confinement, and to fine to the extent of Rx. 100, or to both combined; also to whipping as a separate or additional punishment for certain offences. The magistrate of the district always exercises first-class powers; and he also hears appeals from magistrates of the second and third class within the district. This last-mentioned jurisdiction may likewise be exercised by any magistrate of the first class duly empowered by the Local Government. A magistrate of the second class can award imprisonment up to six months, fine up to Rx. 20, or both, and also whipping, if specially empowered by the Local Government. A magistrate of the third class can only imprison up to one month, or fine up to Rx. 5, or combine these punishments. All magistrates, whether members of the covenanted Civil Service or not, are formally placed in one or other of the three classes. The "district" magistrate, the "joint" magistrate, and the "assistant" magistrate, are commonly members of the covenanted Civil Service. Besides these there is a large number of "deputy" magistrates, most of whom are not members of the covenanted Civil Service. But to whatever branch of the service an officer may belong, his magisterial powers depend entirely upon the class in which he is placed for the time being.

Statements Nos. 26 and 27 of the Statistical Abstract* relating to British India show the general results of criminal trials, and of appeals and revisions in criminal cases, in the various provinces of India during a series of years. The following table shows the nature and length of the sentences of imprisonment, and sentences of death, passed during the years 1885 to 1887:—

	Numbers.			Ratio per Cent. to Total Number of Sentences of Imprisonment.		
	1885.	1886.	1887.	1885.	1886.	1887.
Not exceeding 1 month - - - -	55,225	57,312	56,562	38.49	38.18	36.58
Above 1 month and not exceeding 3 months	29,885	30,837	31,818	20.83	20.54	20.58
Above 3 months and not exceeding 6 months	24,486	25,649	26,578	17.07	17.09	17.19
Above 6 months and not exceeding 1 year -	15,917	16,854	18,162	11.09	11.23	11.74
Above 1 year and not exceeding 2 years -	9,868	9,690	11,494	6.88	5.96	7.43
Above 2 years and not exceeding 5 years -	4,983	5,427	5,826	3.47	3.62	3.77
Above 5 years and not exceeding 10 years	1,402	1,821	1,702	.98	1.21	1.10
Exceeding 10 years - - - - -	49	147	74	.03	.09	.05
Transportation :						
(a) For life - - - - -	796	1,631	1,062	.55	1.09	.69
(b) For a term - - - - -	409	967	926	.29	.65	.60
Sentences of death - - - - -	460	463	425	—	—	—

The ratios in the above statement show that there was a tendency to impose slightly severer sentences during the year under review, in cases in which imprisonment for not more than five years was the sentence, but the percentage of sentences of not more than one year's duration was as high as 86.09 of the whole. From an examination of the crime returns of recent years there is reason to think that there may be some justification for the opinion put forward by some authorities, that the suppression of crime is to some extent retarded by the award of inadequate punishments. There was a material decline in the sentences of transportation and in death sentences, mainly attributable to the restoration of order in Burma, but the grave crimes that are made punishable by these sentences showed no material decline in British India generally.

Statistics

Statistics as to punishment by fine and whipping are given in Statement No. 28 (pages 56 to 59), of the Statistical Abstract relating to India. There was a slight decline in the number of juvenile offenders sentenced to imprisonment, 2,117, as compared with 2,207 in the previous year. In spite of this general result, there was an increase in all the larger provinces except Bombay, the North Western Provinces and Oudh, and Burma. In the North Western Provinces, where there is as yet no reformatory, the number declined from 537 to 343, the latter figure amounting to 8 per cent. of the total admissions in those provinces, as compared with a proportion in Madras of 2·7 per cent. These comparative figures suggest different treatment of juvenile offenders in different provinces. Directions have been given that in provinces where there are no reformatories sentences of imprisonment should be more sparingly imposed. A reformatory was during the year opened at Chingleput, in the Madras Presidency, and reformatories are about to be established at Yeraoda, in the Bombay Presidency, and at Jubbulpore, in the Central Provinces; while in the North Western Provinces and Oudh the Local Government has a scheme for the establishment of a reformatory under consideration.

CRIMINAL JUSTICE.

In Ajmere there were 5,527 cases, involving 10,634 persons, tried in the Courts. The average duration of each case in the Sessions Court was 16·66 days, and in the Magistrates' Courts 5·93 days.

In Berar 11,737 offences under the Penal Code, and 3,962 under special and local laws, were reported; of these 80·1 per cent. were returned as true. The proportion of persons tried for offences to the total population was one in 146; 9,794 persons were punished, and of these five were sentenced to be hanged, eight to transportation for life, and 1,684 to rigorous imprisonment. There were 22,406 witnesses examined, of whom 83·9 per cent. were detained for only one day. The number of district magistrates remained unchanged. There were altogether 44 stipendiary and 16 honorary magistrates.

Although the number of offences reported in Coorg was less than in 1886, the number of cases brought to trial and the number ending in conviction were higher than in the previous year. The percentage of acquittals to cases reported was 53, against 34 in 1886, and of acquittals to cases brought to trial, 63. The administration of criminal justice in Bangalore during the year presented no new features. The total number of cases brought to trial was 2,891, and the number of persons under trial was 4,024. The percentage of convictions was 64·56.

Coorg and Bangalore.

There was no change in the administration of criminal justice in Bengal during the year 1887-88. The number of sessions judges was 30, an increase of one over the number in the previous year. The number of stipendiary magistrates was increased by one, and the number of honorary magistrates from 1,606 to 1,673. The number of benches of magistrates in the interior was 196, against 185 in the previous year. The High Court, in its criminal jurisdiction, dealt with 169 persons, of whom 45 were discharged or acquitted, 94 convicted, and 20 were still under trial; of the convicted 30 were sentenced to death. In its appellate jurisdiction the High Court dealt with 3,246 cases, in 1,034 of which the appeals were rejected; the sentences were confirmed in 775; modified in 294; reversed in 666; and enhanced in 14 cases. In the courts of sessions 1,141 prisoners were discharged or acquitted, 1,525 were convicted, and 387 remained under trial. Death sentences by the sessions courts numbered 39. Out of 339 cases tried by jury, the sessions judges approved of the verdict in 263 cases, disapproved of it wholly in 33 cases, and partially in 43 cases. Out of 21 jury cases referred to the High Court the verdict of the jury was reversed in five only. The number of persons who appealed to the courts of sessions was 9,459, against 9,279 in the previous year. In 3,456 cases the original sentences were confirmed, in 1,051 modified, and in 1,921 reversed. In the courts of magistrates outside the jurisdiction of the presidency magistrates' courts (Calcutta) 182,041 persons were brought to trial, of whom 108,877 were convicted or committed to the sessions; 239 European British subjects, involved in 194 cases, were brought to trial and 169 were convicted. The charges were mainly of offences against local and special laws. The total number of witnesses who attended the courts was 415,593. The number of persons sentenced

CRIMINAL
JUSTICE,
Assam.

sentenced to whipping was 1,267, as compared with 1,652 in 1886, and 1,965 in 1885.

The increase of crime in Assam was noticed under the head of Crime. The percentage of convictions in cases returned as true fell from 63·7 to 62·09. The average duration of cases was longer in the courts of all classes of magistrates in the province, except in those of district and honorary magistrates in Sylhet. On the other hand, cases committed to the sessions court were more expeditiously disposed of, except in Cachar. The proportion of persons convicted to persons committed to the sessions courts fell from 70·06 in 1886 to 52·6 in 1887.

North Western
Provinces and
Oudh.

Of 309,485 offences reported in the North Western Provinces and Oudh, 248,658 were returned as true, and 140,366 were brought to trial. The great majority of cases before the court were, as usual, of a trivial character; the number of sentences to fines and imprisonments for not more than six months being 77,433 and 28,560 respectively, while the sentences to more than six months were 9,082, to transportation 301, and to death 94. Sentence of death was confirmed by the High Court on 47 persons, and by the Judicial Commissioner of Oudh on 21 persons, during the year. The average duration of a case before a magistrate in 1887 was five days in either province; cases before sessions judges occupied, on an average, 36 days in the North Western Provinces and 46 days in Oudh, where the judges are also commissioners of divisions. The number of cases disposed of by unpaid magistrates sitting singly or in benches rose to 34,537, from 33,890 in 1886, and 29,130 in 1885. Both the High Court and the Judicial Commissioner of Oudh have commended the work of the honorary magistrates. The bench of honorary magistrates at Lucknow disposed of 2,100 cases during the year, and gave full satisfaction in the exercise of the summary powers of trial with which it had been invested. The experimental introduction of trial by jury for certain classes of offences at Allahabad, Benares, and Lucknow continued to give satisfaction during 1887.

Punjab.

The increase of crime in the Punjab was noticed under the head of Crime. A special public prosecutor for sessions in the districts of the Peshawar Division was appointed during the year, and arrangements were made for the better representation of Government in criminal cases. The question whether similar measures should be taken in other divisions is under consideration. There is good reason to believe that one of the reasons why criminals brought to trial so often escape conviction is, that both before the committing magistrate and the court of session the defence is better represented than the prosecution.

Central Provinces.

The total number of offenders brought to trial in the Central Provinces during the year was 24,667, against 25,387 in the previous year, and the most notable fact is that offences against the human body declined from 7,404 to 6,511, while offences against property increased from 9,770 to 11,145. Experience shows that when, as in the year under report, the poorest classes are pinched for food they have neither the money nor the inclination to seek the aid of the magistrate, and fewer complaints of petty assaults are brought into the courts, while burglaries and petty thefts become more common. The percentage of persons convicted or committed to trial to persons tried was 60·3, against 58·2 in the previous year. Work was generally disposed of with promptitude, and the honorary magistrates' work gave great satisfaction.

Lower Burma.

The administration of criminal justice in Lower Burma presented no unusual features. The number of offences reported was 49,382, as compared with 46,121 in the previous year, the increase being entirely in minor offences. The work in the criminal courts was promptly and efficiently discharged. The proportion of cases in which sentences were reversed or modified was slightly larger than in 1886. The machinery of criminal justice administration resumed its normal state, the Burma Jails Delivery Act having lapsed on the 30th June 1887.

Upper Burma.

The criminal law in Upper Burma is substantially the same as in the rest of India. The Penal Code is in force in the whole of Upper Burma except the Shan States, and the Code of Criminal Procedure, with some modifications, regulates the procedure of all criminal courts. The chief modifications are that each district magistrate is a sessions judge for his own district, and

and tries cases without commitment, while each commissioner of division exercises the powers of a High Court in his jurisdiction except as regards European British subjects. The preparation of the record is somewhat simplified, and the right of appeal is limited. The most important part of the work consisting of the trial of cases of dacoity and rebellion fell on the District Magistrates as Sessions Judges. Out of 13,518 persons under trial during the year 56 per cent. were convicted. Only 56 capital sentences were referred for confirmation to Commissioners, and of these 37 were confirmed. The administration of criminal justice in Upper Burma was more regular and satisfactory than might have been expected within so short a time after the annexation of the country, while the energies of all officers were chiefly directed to the task of restoring order.

The total number of original cases before the Courts was 119,654, of which 6.6 per cent. were before the village magistrates. Of the 186,443 cases in the regular Courts, 34,238 were contributed by the town of Madras, and 152,205 by the Mofussil. The total number of appeals instituted was 5,616, of which 5,179 were referred to magistrates and Sessions Courts, and 437 to the High Court. Of the 100,465 persons on whom appealable sentences were passed by second and third-class magistrates, 10.9 per cent. appealed, and the sentences passed on, 56.2 per cent of them were confirmed. Of persons convicted by first-class magistrates, 42 per cent. appealed, and the percentage of sentences confirmed was 71.3. The Sessions Courts disposed of original cases affecting 2,000 persons, the percentage convicted being 42.1, and of 548 appeals. The percentage of Sessions Courts' sentences confirmed on appeal in the High Court was 69.4. The cases instituted in the Presidency Magistrates' Courts have shown a progressive increase since 1883, and were over 34,000 in 1887. The High Court disposed of 67 cases at Sessions, the percentage convicted being 61.9. Appeals in the High Court numbered 437, against 570 in 1886 and 622 in 1885.

In connection with 110,825 offences returned as true, 105,554 cases were brought to trial before the Courts. The total number of persons under trial during the year was 174,122, or 1,303 less than in the previous year. The percentage of acquittals and discharges rose in 1887 to 55, as compared with 51 in 1886. During the year 743 cases, in which 762 European British subjects were accused, were brought to trial, the offences charged being chiefly hurt, criminal force and assault, and offences under special and local laws. Of the total number of persons tried during the year, 3,615 were before village officers, 3,320 before special magistrates, 7,246 before honorary magistrates sitting singly, 125,008 before stipendiary magistrates other than district and sub-divisional magistrates, and 1,037 before benches of magistrates; 1,294 persons were under trial in the Courts of Session, and 75 before the High Court and the Sadar Court in Sind. The number of appellants during the year under report was 6,925 as compared with 6,658 in 1886; 970 cases were reviewed by the inferior courts, but 80.41 per cent. of those cases resulted in no interference. The number of reviews by the High Court increased by 36, and the number of reviews by the Sadar Court in Sind increased by 33. On the whole the working of the criminal courts in Bombay during the year under report was satisfactory.

JAILS.

Excluding Upper Burma the number of jails and lock-ups in British India during 1887 was 741. At the beginning of 1887 the jails contained 76,738 prisoners as compared with 75,156 at the beginning of 1886. The total number of prisoners in the jails during the year was 448,741 (426,686 males and 22,055 females) against 440,090 in 1886 (418,026 males and 22,064 females). The daily average in jail, however, was only 70,879 in 1887 compared with 75,978 in 1886, the diminished average in the former year being chiefly due to the special releases granted on the occasion of Her Majesty's Jubilee. There were in all 4,031 convicts under sentence of transportation for life, and 2,760 for a term of years. The number transported to the Andamans was 1,599 as compared with 1,631 in 1886. Of the 154,629 convicts

6 STATEMENT EXHIBITING THE MORAL AND MATERIAL

JAILS.

victs admitted into jail in 1887, 19,266 (12.45 per cent.) were identified as having been previously convicted. The ratio varied from 17.53 per cent. in Burma to 6.29 per cent. in Coorg. Of the 2,070 juvenile convicts, 11.14 per cent. had been previously convicted. The new rules for the identification of habitual criminals issued for general guidance in 1887 are reported to have worked well. There was a serious decline in the average number under instruction in jail from 3,715 to 3,112, and the number released who had been under instruction fell from 5,529 to 5,193. The average number of convicts sentenced to labour was 60,820 as compared with 65,810 in 1886. The average number actually available for labour, however, was 56,082 as compared with 60,566 in 1886.

The manner of employment of the convicts available for labour in 1886 and 1887 is compared in the following table:—

	1886.	1887.
On unremunerative labour	1,985	1,271
As prison officers	3,433	2,821
As prison servants	6,854	6,449
On gardening	3,733	3,710
On preparing articles for use or consumption in jails, e.g., wheat-grinding, manufacturing of prison clothing, &c.	6,795	6,800
Jail repairs	3,083	2,800
On additions and alterations to jail buildings—		
(i.) Under the Superintendent	3,190	2,961
(ii.) Under the Public Works Department	384	682
On new jails—		
(i.) Under the Superintendent	2,108	1,219
(ii.) Under the Public Works Department	149	97
On manufactures	25,903	25,116
On public works	2,452	2,187
Hired out to municipalities or individuals, or departments other than the Public Works Department.	1,020	681

The ratio per cent. of labouring convicts employed as prison officers fell from 5.21 to 4.63, while the ratio of those employed as prison servants rose from 10.42 to 10.62. Employment of convicts on jail buildings was carried out to a greater extent in the North-Western Provinces and Oudh than elsewhere. In those provinces 1,500 convicts were on an average employed on jails addition and alterations, and 1,202 on new jail buildings. The total number of convicts employed on manufactures was slightly less than in 1886, but the ratio of convicts so employed to the whole number of labouring convicts rose from 39.36 to 41.29. The average number so employed fell from 5,972 to 4,925 in Bengal, and from 3,657 to 3,179 in Burma. On the other hand, the average number employed on working days rose from 5,037 to 5,583 in the North-Western Provinces and Oudh, and from 4,764 to 5,219 in the Punjab.

The cash earnings of convicts fell from Rx. 115,120 in 1886 to Rx. 101,189 in 1887. The release at the Jubilee of a large number of convicts who had become skilled in jail manufactures was undoubtedly prejudicial to the financial results of the employment of convicts during the year, but after making allowance for this circumstance, the results of the employment of convicts during the year are in some provinces very unsatisfactory.

The grand total of offences against jail discipline diminished from 84,084 in 1886 to 78,398 during the year under review. The number

of criminal offences rose from 275 to 279, chiefly owing to increases in the Punjab and Assam. Offences relating to work were, as usual, most numerous, though on the whole they declined as compared with the previous year. The Provinces which show a decline are Bengal, the Punjab, Bombay, and Burma, while Madras, the Central Provinces, and Assam exhibit an increase. The variations from the figures of the previous year in other Provinces were unimportant. The question of the more uniform record of offences against jail discipline is again under the consideration of the Government of India. Without losing sight of the consideration that provincial peculiarities render complete uniformity impossible, there can be no doubt that, for various reasons, it is desirable to aim at much greater uniformity in the execution of legal sentences in the various provinces than has yet been obtained.

Passing to the punishments awarded for these offences it may be said that on the whole they evidence a more considerate spirit than seemed to be apparent from the reports of preceding years. They show that solitary confinement and reduced diet were inflicted less frequently than formerly. In Bengal there was a marked decrease in both forms of punishment; while in the Punjab there was a marked increase, and in the Central Provinces a marked decrease, in the latter form. In other provinces the figures present no striking variations. Solitary confinement was combined with reduced diet in 5,877 as compared with 6,054 cases in 1886. The decrease occurred mainly in Bombay and Bengal. In Burma there was a considerable increase. In the North-Western Provinces and Oudh out of a total of 6,185 punishments, no less than 2,142 were cases in which solitary confinement was combined with reduced diet. The Government of India have directed that this combined form of punishment should be used only when the offence to be punished is a really serious one.

The total number of prisoners punished by whipping was 2,427, as compared with 3,036 in the previous year. The ratio of such punishments to the daily average of male prisoners fell from 1·2 to ·9. The number of cases in which less than 10 stripes were awarded fell from 20·1 per cent. of the total whippings in 1886, to 14·9 per cent. in 1887. In 1880, when the number of male prisoners was 271,633 compared with 256,193 in the year under review, the number of whippings was 17,057, and the ratio to the daily average of male prisoners 6·2. Moreover, while in 1880 corporal punishments amounted to 19·0 per cent. of the total jail punishments, in 1887 they numbered only 3·1 per cent. Discipline in Indian jails is even better now than when punishments were more numerous and more severe.

The number of miscellaneous punishments inflicted in 1887 was 57,747, as compared with 61,617 in 1886. In Bengal the number of such punishments amounted to 33,095, and included 23,428 cases in which either fetters or handcuffs were imposed, and 5,387 cases in which marks earned towards remission were forfeited. In the year under review the aggregate number of punishments in Bengal decreased, but the ratio of punishments to the daily average in jail rose from 299·93 to 328·41. The ratio over the whole of India, excluding Bengal, was 79·9.

In 1886 there were 172 escapes, and at the beginning of 1887 there were 596 escaped convicts at large. During the year under review the number of prisoners who remained uncaptured was 602, as compared with 657 in 1886. There was a satisfactory decline in Madras, Bombay, and Burma. In the Punjab, Central Provinces and Assam, the number of escapes was large.

In 1886 the number of convicts released who were eligible for remission under the mark rules was 10,300, of whom 386 failed to gain any remission at all. In the year under review the number of convicts who gained remissions under the rules declined to 7,696, and 22 were released at the expiration of their sentences, who though eligible for remission had failed to gain any. The decline in the numbers who gained remissions under the rules is due to the fact that at the time of the Jubilee a large number of convicts who had earned some remission were released under special orders. Though the maximum remission earned has in almost every class of convicts

JAIL

declined, the average remission gained has increased except in the case of convicts sentenced to from eight to 10 years' imprisonment.

The total cost of guarding and maintaining a daily average of 70,953.77 prisoners was Rs. 458,477, as compared with Rs. 475,987 incurred on an average of 76,037.12 prisoners in 1886. The average cost per head thus rose from Rs. 62-9-7 in 1886 to Rs. 64-9-10 in 1887. The cost of rations per head of each prisoner continues to be much higher in Madras than anywhere else except Coorg. It declined considerably in Bengal, Assam, and Coorg, and slightly in Bombay, and it rose by Rs. 4-7-10 per head in the Punjab, and Rs. 2-13-7 in the North-Western Provinces and Oudh, and to a smaller extent in the Central Provinces, Burma, and the Hyderabad Assigned Districts. The net result was that the average cost of rations per head over India rose from Rs. 23-10-9 to Rs. 24-6-5.

The system of employing convicts as warders continues to be favourably reported on. During the year the Government of India was in consultation with the Local Governments as to the removal of defects existing in some provinces in the arrangements for the supervision of female convicts. The subject, which in the existing conditions of Indian society is a most difficult one, is still under the consideration of Government.

The number of prisoners who gained weight or whose weight remained stationary while in jail rose, while the number who lost weight fell. The total number of prisoners admitted into hospital in 1887 was fewer than in the preceding year, but the ratio per mille of admissions on average strength rose from 927.4 to 946.9.

The number of deaths in the last two years were as follows :

	Fevers.	Bowel Complaints.	Cholera.	Other Causes.	Total.
1886 - - - -	255	787	131	1,357	2,530.
1887 - - - -	224	790	325	1,174	2,513.

The ratio per mille of deaths from the principal causes enumerated above among the jail population is given in the following statement. The corresponding figures for the general population are added, with, however, the caution that the latter figures lay claim to nothing more than an approximation to correctness :—

	Jail Population (Daily Average).				General Population.			
	Ratio of Deaths from Fever.	Ratio of Deaths from Bowel Complaints.	Ratio of Deaths from Cholera.	Ratio of Deaths from all Causes.	Ratio of Deaths from Fever.	Ratio of Deaths from Bowel Complaints.	Ratio of Deaths from Cholera.	Ratio of Deaths from all Causes.
Madras - - - -	1.62	5.82	.40	23.03	8.6	0.9	1.0	21.6
Bombay - - - -	1.80	5.41	1.64	19.69	18.71	2.59	1.56	27.67
Bengal - - - -	5.06	12.97	1.71	32.73	16.44	.85	2.60	23.46
North-Western Provinces and Oudh.	2.48	8.32	2.03	27.64	25.64	1.41	4.58	35.45
Punjab - - - -	3.72	13.03	6.03	44.52	23.78	1.30	0.47	34.31
Central Provinces - - -	2.93	21.65	14.17	65.77	19.20	2.95	1.43	32.70
Lower Burma - - - -	2.72	17.36	14.14	58.70	8.71	.66	0.73	16.18
Assam - - - -	4.87	14.01	.61	28.03	14.38	3.97	1.75	24.52
Coorg - - - -	33.36	22.24	—	55.60	15.39	1.55	0.01	19.41
Hyderabad Assigned Districts -	5.24	4.27	8.54	26.70	18.3	8.2	5.6	45.3

The following statement compares the mortality of prisoners in jail Jails according to the length of time for which they have been incarcerated :-

PROVINCE.		Under Six Months in Jail.			From Six Months to Twelve Months.			From One to Two Years.			From Two to Three Years.			From Three to Seven Years.			Above Seven Years.		
		2.		Ratio of Deaths per Mile of Average Number.	3.		Ratio of Deaths per Mile of Average Number.	4.		Ratio of Deaths per Mile of Average Number.	5.		Ratio of Deaths per Mile of Average Number.	6.		Ratio of Deaths per Mile of Average Number.	7.		Ratio of Deaths per Mile of Average Number.
		Average Number.	Deaths.		Average Number.	Deaths.		Average Number.	Deaths.		Average Number.	Deaths.		Average Number.	Deaths.		Average Number.	Deaths.	
Madras	1886	1,933	32	16.5	1,039	20	19.9	931	27	28.9	602	10	16.6	1,421	16	11.2	83	20	24.0
	1887	1,658	55	33.1	955	23	24.0	889	40	44.9	648	7	10.8	1,112	10	8.9	704	10	14.1
Bombay	1886	3,202	85	26.5	1,025	38	37.0	903	31	34.3	355	13	36.6	805	25	31.0	203	6	28.7
	1887	2,843	60	21.1	979	21	21.4	689	16	23.2	292	5	17.1	474	9	19.0	195	5	25.6
Bengal	1886	6,986	214	30.6	4,71	125	50.5	2,079	97	46.6	1,260	38	30.1	373	30	80.3	410	9	2.91
	1887	4,846	179	36.9	2,172	81	37.2	1,571	56	35.6	1,058	25	23.4	993	14	14.0	230	4	15.3
North-Western Provinces and Oudh	1886	8,180	149	18.2	3,730	88	23.5	2,865	72	25.1	1,677	22	13.1	1,346	55	40.8	889	31	34.8
	1887	8,387	196	23.3	3,751	103	27.4	2,852	73	25.5	1,240	28	22.5	982	73	74.2	732	25	34.1
Punjab	1886	4,197	81	19.3	1,990	62	31.1	1,978	58	29.3	892	30	33.6	824	52	63.1	161	10	62.1
	1887	4,730	129	27.2	2,193	102	46.5	1,762	107	60.7	878	56	63.7	650	76	116.9	174	13	74.7
Central Provinces	1886	1,270	62	48.0	550	93	96.2	512	44	85.8	444	13	29.2	373	32	84.6	399	27	90.2
	1887	1,450	118	81.3	587	47	79.9	561	36	67.7	317	11	34.6	367	21	57.0	275	15	54.3
Lower Burma	1886	2,502	232	92.7	1,825	111	60.8	1,381	50	36.2	740	23	31.0	814	22	27.0	168	4	25.3
	1887	2,819	164	58.3	1,863	115	61.0	1,233	92	73.4	549	27	49.1	699	34	48.6	145	-	-
Assam	1886	592	37	62.4	251	12	47.7	204	18	87.9	86	4	46.4	62	9	108.8	11	1	86.9
	1887	570	25	43.3	254	4	13.7	230	7	30.4	186	1	5.3	110	-	-	8	-	-
Coorg	1886	23	6	251.1	11	-	-	20	1	49.3	16	-	-	10	-	-	4	-	-
	1887	19	4	207.6	10	1	93.2	13	-	-	19	-	-	9	-	-	3	-	-
Hyderabad Assigned Districts	1886	453	4	8.3	197	-	-	177	5	28.2	121	-	16.5	109	1	9.1	76	-	-
	1887	439	6	13.6	156	1	6.3	143	5	34.9	67	4	58.8	73	5	68.1	13	2	151.9
TOTAL	1886	23,343	902	30.7	13,001	509	39.1	11,052	403	36.5	6,195	155	25.0	6,165	242	39.3	3,052	108	35.3
	1887	27,755	936	33.7	12,943	493	38.4	9,935	432	43.47	5,263	164	31.1	5,472	242	44.2	2,512	74	29.4

The statistics as to the mortality of prisoners, according to the length of time during which they have been imprisoned, show that during the year under review, while in Madras, Bombay, and Bengal the mortality was greatest in the earlier portions of terms of imprisonment, in the North-Western Provinces and Oudh and the Punjab, the proportion of deaths was greatest in the later portions. One hundred and sixty-two prisoners were released by Government on the ground of sickness; the great majority in Burma (64), Madras (43), and Bengal (28). The slight decline in the total number of deaths was accompanied by a large increase in the number of deaths from cholera, which principally occurred in Burma, the Punjab, the North-Western Provinces and Oudh, and the Central Provinces. The jails in Bengal were singularly free from cholera during the year. The jails which suffered most from this disease were those at Lahore (Central) and Moulmein, in which the numbers of deaths from cholera were 57 and 91 respectively. The general unhealthiness of the Moulmein jail is so great, that it has been determined to abandon it.

The number of deaths from fever showed a satisfactory decline in Bengal and Bombay, but there was an increase in the North-Western Provinces and Oudh and the Punjab, in both of which provinces the health of the general population was worse than in 1886.

In the majority of provinces the number of deaths from miscellaneous causes declined, particularly in Bombay (from 134 to 66), Bengal (from 208 to 159), Burma (from 285 to 189), and Assam (from 30 to 14). In the Punjab

Punjab only was there any material increase (from 195 to 245), but there it was very large indeed. The ratio of deaths from these causes declined in all provinces, except Madras, the North-Western Provinces and Oudh, the Punjab, and the Hyderabad Assigned Districts, and it was only in the Punjab that the increase in the ratio was really serious.

On the whole the statistics appear to show that an advance was made during the year under review in the manner of treating the sick in jails. The most satisfactory feature exhibited by the statistics in this respect is the manifest improvement in the Bombay, Bengal, and Assam jails. The former now show the best results in India, while in Bengal there was a smaller mortality than has ever been reported before. In Assam the ratio of mortality declined from 54.54 to 28.03 per mille. In Madras (23.03 as compared with 16.01), the North-Western Provinces and Oudh (27.64 as compared with 22.85), the Punjab (44.52 as compared with 38.56), and the Hyderabad Assigned Districts (26.70 as compared with 11.04), the mortality was higher in 1887 than in 1886. The highest ratio of mortality (the figure being practically the same as last year), viz., 65.77 per cent., occurred in the Central Provinces.

CIVIL JUSTICE.

Civil Justice.
Receipts and
Expenditure.

The whole expenditure entered in the Finance and Revenue Accounts for 1887-8 under the head of Law and Justice, was Rx. 3,422,280, against which were receipts amounting to Rx. 571,850. In the previous year the expenditure had been Rx. 3,396,453, and the receipts Rx. 587,196. The total charges under High Courts and Chief Court were Rx. 284,800, and under Civil and Sessions Courts were Rx. 1,172,004. The charges under the head of Criminal Courts were Rx. 885,281, and of jails, exclusive of the Andaman and Nicobar Islands, were Rx. 626,681.

Systems of
Administration

Broadly speaking, there are two systems of civil justice administration in India, the one obtaining in Regulation and the other in Non-Regulation Provinces. In the latter, for the most part, the executive and judicial functions are united in the same hands; in the Regulation Provinces, on the other hand, the collector and judge are two separate persons in distinct departments of the service. In the Non-Regulation Provinces of Punjab and Oudh, however, the system has to a large extent been assimilated to that of the Regulation Provinces. The Non-Regulation Provinces may be distinguished by the title of Deputy Commissioner, which takes the place of Collector in Regulation Provinces.

Taking Bengal as a typical Regulation Province, and tracing the system from the highest court downwards, the High Court, in respect of civil justice, exercises an appellate, a legal, an equitable, an ecclesiastical, an admiralty, and a bankruptcy jurisdiction. The functions which in England were, until recently, divided among different courts, are there exercised in one court and by the same judges. Below the High Court are the district and additional judges, the Small Cause Court and subordinate judges, and the munsifs. Of these officers all, except district judges, are purely civil judges. The jurisdiction of district and subordinate judges extends to all original suits cognizable by the civil courts, but does not ordinarily include the powers of a Small Cause Court. The jurisdiction of a munsif extends to suits up to the value of Rx. 100. An appeal lies from the High Court to the Privy Council in England, if the value or amount of the subject-matter exceeds Rx. 1,000. Appeals from the decrees and orders of the district and additional judges lie to the High Court. Appeals from subordinate judges and munsifs lie to the district judge in suits up to Rx. 500, but in suits of higher value the appeals lie to the High Court. There is no appeal from the order of a Small Cause Court.

The supreme administration of civil justice in the various Provinces is vested in the same courts as that of criminal justice (*see* page 41). In the Central Provinces, which may be taken as an example of a Non-Regulation Province, the civil and criminal courts are controlled by a chief judge, under the name of Judicial Commissioner. Next to him come the Commissioners of Division, who are at the same time time judges of the Court of Session, and the civil judges, to whom appeals lie in all causes decided by Deputy Commissioners.

Commissioners and by Assistant Commissioners, when the subject-matter exceeds Rs. 100 in value. The original civil jurisdiction of the deputy commissioner is unlimited in amount, and he hears appeals from the assistant commissioners up to Rs. 100. Below the Deputy Commissioners come the Assistant and Extra-Assistant Commissioners, the tahsildars, and the munsifs, of whom the last-named discharge judicial functions only. CIVIL JUSTICE.

Statements Nos. 24 and 25 of the Statistical Abstract relating to India show the general results of the trial of civil and revenue cases in courts of original and appellate jurisdiction in each presidency or province of British India for a series of years.

The number of Civil Courts remained stationary, and the steady growth of litigation has resulted in a larger number of cases being carried forward to next year. Ajmere.

Suits decreased in Berar by 8 per cent., and 84.9 per cent. of those instituted were disposed of. Suits for money due comprised 85.4 per cent. of the total number instituted. The average value of the money suits was Rs. 118 0 a. 10 p.

In Coorg there was an increase of litigation, and the jurisdiction of the two Munsifs' Courts was raised from Rs. 500 to Rs. 1,000. In Bangalore the number of civil suits, 2,248, was the highest on record. Coorg and Bangalore.

The original side of the High Court had 996 suits for disposal, and disposed of 562. There were 434 suits pending at the close of the year. The High Court sat on the appellate side for 262 days in 1887, against 250 days in 1886, and disposed of 5,192 appeals and applications, as compared with 6,679 in the previous year. The proportion of work undisposed of on the appellate side was 35 per cent. as against 26 per cent. in 1886. The courts in the interior disposed of 493,663 original suits out of 617,385 for disposal. Of the latter number 509,703 were instituted in Munsifs' Courts, of which 402,820 were disposed of. Suits for money increased by 12,099, and suits for rent by 15,145. There was a striking fall in the number of suits instituted in Bengal for small sums, there being 77,239 less cases for amounts not exceeding Rs. 50 and 308,569 less for amounts not exceeding Rs. 100. In the Calcutta Court of small causes the steady decline in institutions has continued. This falling off is ascribed to the more elaborate procedure introduced in 1882, causing prolongation in heavy cases and more frequent adjournments in the minor cases, whereby suitors in the latter are discouraged. In the Mofussil Small Cause Courts there was also a decrease in institutions. There were 4,874 regular appeals for decision in the High Court, of which 2,461 were disposed of. Courts in the interior decided 20,225 appeals out of 44,417 pending before them. As in the previous year the arrears were most noticeable in the District Judges' Courts. Bengal.

In Assam the number of suits instituted fell from 25,052 in 1886 to 24,592. The average value of the suits rose from Rs. 232 to Rs. 319. The percentage of contested cases was slightly smaller, 26.5 against 27.7. The average duration of uncontested cases decreased in all classes of courts, and that of contested cases was largely reduced in the courts of the subordinate judges. The number of appeals represented 21.33 per cent. of the cases in which an appeal lay. Assam.

The total number of suits instituted during the year was 100,374 in the North-Western Provinces, 62,735 in Oudh, and 5,307 in Kumaon. The figures for the North-Western Provinces and Oudh show an increase, but there was a slight decrease in Kumaon. The number of suits disposed of by the courts was considerably above that of the previous year, in which also there had been a satisfactory increase in disposals. In the North-Western Provinces the average value of the suits was Rs. 225, in Oudh Rs. 150, and in Kumaon Rs. 77. The average duration of both contested and non-contested cases decreased in the North-Western Provinces; in Oudh uncontested cases were slightly longer, but the length of contested cases was reduced. The results of appeals were that about 64 per cent. of the original orders were maintained. North-Western Provinces and Oudh.

The number of institutions of civil suits in the Punjab continued to increase. The subordinate courts, however, kept pace with their work, and there was a decrease in the pending file at the close of the year. Proposals were under consideration, but had not been decided at the close of the year. Punjab.

CIVIL JUSTICE.

for extending the small cause court system, and for applying to the Punjab some of the provisions of the Deccan Agriculturists Relief Act, by the establishing of courts of conciliation and other rural courts, for the disposal of cases between agriculturists and money-lenders. The work of the Chief Court continued to increase, and the addition of two temporary judges, making six in all, merely enabled the court to keep pace with institutions, without reducing the arrears. Since the close of the year the Punjab Courts Amendment Act has passed into law. The main object of the new Act is to enable the Chief Court to dispose more readily of the work that comes before it.

Central Provinces.

There was a large and general increase of litigation in the Central Provinces in 1886, which was followed in the year under report by a slight decrease. Of the suits instituted 74 per cent. did not exceed Rs. 50 in value, and 85 per cent. were for money or moveable property. The number of tenancy suits, chiefly for arrears of rent, rose from 9,251 to 10,460. Considering, however, that the mass of the population is agricultural, the number of those suits (9·4 per cent. of the total litigation) cannot be regarded as large, and there is no reason to apprehend that the relations between landlords and tenants in the provinces are generally other than satisfactory. Small Cause Courts, Naib Tahsildars and Munsiffs disposed of 68·7 per cent. of the original work; Tahsildars of 20·1 per cent.; and Assistant Commissioners and Civil Judges of 11 per cent.

Lower Burma.

There is little of interest to record regarding the administration of civil justice in Lower Burma. The number of suits was somewhat less than in the preceding year, but the litigation was of the same character as usual. In nearly half the suits brought to court, the value of the subject matter was less than Rs. 50, and in nearly one-sixth the value was less than Rs. 10. Over 60 per cent. of the suits filed were disposed of without contest. The work of the courts was disposed of more promptly than in the preceding year.

Upper Burma.

Statistics of civil litigation in Upper Burma are not available. Except in Mandalay, where a court consisting of two judges whose procedure is regulated by the civil procedure code, was established, civil suits were disposed of by Deputy Commissioners, and sub-divisional and township officers. The experiment of establishing Circle Courts has scarcely been tried; but much of the petty litigation is no doubt disposed of by arbitration and does not come before the regular courts. The work of the subordinate courts is supervised by Commissioners, who exercise the powers of High Courts in respect of civil as well as criminal jurisdiction.

Madras.

There was no change in the classes of Civil Courts in Madras during the year. The total civil litigation of the Presidency was composed approximately of 249,000 original suits and 10,200 appeals as compared with 264,000 and 9,700 respectively in 1886, the falling off having occurred in all the important classes of Civil Courts. About 62,000 suits were in the courts of the village munsifs, of whom 3,400 exercised powers as compared with 3,500 in 1886. Before the regular Mofussil Courts there were 160,000 suits, of which 68,000 were ordinary and 92,000 small causes, as compared with 163,000 and 154,000 in the two preceding years. To this number District Munsifs' Courts contributed 87 per cent., Sub-judges' Courts 8 per cent., and District Courts 0·4 per cent. The number of appeals from decrees on the files of the District and Sub-judges' Courts was the highest on record, being 8,600 as compared with 8,200 in 1886 and 8,000 in 1885. The numbers of suits and appeals disposed of by the regular Mofussil Courts were 162,000 and 8,900 respectively, leaving arrears of 32,900 and 4,000 as against 31,500 and 4,000 in 1886. Of appeals from original decrees 58·55 per cent., and of those from appellate decrees 73·59 per cent. resulted in confirmation by the superior courts. In the Presidency Small Cause Court 26,000 suits were instituted against 27,000 in 1886, the first falling off recorded since 1882. There was a slight increase, the first time since 1883, in the number of original suits instituted in the High Court. Of the decisions on the original side 54 per cent. were confirmed by the Division Bench on Appeal as compared with 68·75 per cent. in 1886. On the Appellate side of the High Court the general tendency of appeals to increase, which has existed since 1880, was sustained. The result of all classes of appeals, decided on their merits, was that the decisions of lower

courts were confirmed in 70·6 per cent., reversed or varied in 18·9 per cent., CIVIL JUSTICE and remanded in 10·5 per cent.

In Bombay 4,141 more civil suits were filed during the year than in 1886. Bombay. In 61·7 per cent. the value of the subject-matter did not exceed Rs. 50. The number of suits disposed of by all the courts during the year increased by 8,258, resulting in a diminution of arrears by 448. The average duration of contested suits increased in the High, Small Cause, and Jaghirdars' and Inamdars' Courts, but decreased in the District, Subordinate Judges', Cantonment Magistrates', and Mamlatdars' Courts, and on the whole a further improvement was noticeable in the direction of diminution of delay. The number of appeals disposed of, was 5,043 against 4,765 in 1886. The arrears of appeals in all courts, however, increased by 261, the total number for disposal having increased by 539 during the year. There was a decrease of 9½ per cent. in the number of suits instituted under the Dekkhan Agriculturists' Relief Act in 1887 as compared with 1886. The fall occurred mostly in suits under Chapter II. of the Act, and was confined to merely agriculturists cases, there having been an increase in suits against non-agriculturists. An approximate idea of the relief afforded by the provisions intended for the benefit of the indebted agriculturists, may, in the opinion of the Special Judge, be formed from the fact that during the eight years during which the Act has been in force, mortgage debts amounting to nearly 30-lakhs of rupees have been settled by the Courts and the Conciliators under the Act for about 21 lakhs of rupees. The increasing disposition observable since 1883 to apply by consent the provisions of Chapter II. of the Act to suits of values between Rs. 100 and Rs. 500, shows a growing appreciation of the machinery of revision constituted by the Act. The average duration of suits under Chapter II. of the Act was less by nearly a month than in 1886; the cost of litigation increased 1 per cent., the increase falling mainly under the head of court fees. Conciliation failed in 43 per cent. of the cases against 47 per cent. in the previous year.

REGISTRATION.

REGISTRATION.

IN the Statement for 1885-86 was given a short account of the Registration laws; it will suffice to say here that the law makes compulsory the registration of all non-testamentary documents affecting immoveable property of the value of Rx. 10 or upwards, while it permits the optional registration of other documents. Offices are established in every district for the registration of documents and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1887-88 there were in British India 1,901 registration offices; the total number of documents registered during the year was 1,846,145, or 5 per cent. more than in 1886-87. The total registration fee receipts of the year 1886-87 were Rx. 316,000, as compared with Rx. 299,000 in the preceding year; and the cost of the registration offices was Rx. 192,000. It is claimed for the Indian registration system that it operates to prevent fraud, as well as to secure and simplify titles.

Berar and Coorg.

The number of registration offices in Berar was 62, as at the end of the previous year; the number of documents registered was 26,290, or 5 per cent. more than in the year 1886-87. The value of the property registered and the fee receipts increased in somewhat larger proportion. The increase occurred mainly under the head of documents, whereof registration was optional. In Coorg there was a distinct increase in registration work, and the total number of deeds registered was 1,038, as compared with 695 in the previous year.

Bengal.

The number of registration offices in Bengal remained unchanged at 301. The total number of documents registered was 717,993, or 3 per cent. more than in 1886-87. The increase occurred half under compulsory and half under optional registration of documents relating to immoveable property; documents relating to moveable property are only 17 per cent. of all the documents brought for registration. The increase is said to have been partly due to the provisions of the Transfer of Property Act becoming better known. The number of registered transfers of holdings by ryots (tenants) holding at fixed rates and enjoying occupancy right, rose from 78,692 in 1886-87 to 88,337, though the harvests of the latter year were better than in the former year. The average area of a fixed rent holding was 2·8 acres; with a price equal to 10·7 times the rental; while the average occupancy right holding had an area of 1·9 acres, and fetched 9·8 years' purchase of the rental. There was a reduction of 4 per cent. in the number of registrations under the Tenancy Act, and of 9 per cent. in the number of perpetual leases. The number of ceremonies registered under the Muhammadan Marriage Act rose to 7,668 from 7,252 in the previous year, when the number was smaller than in any year since the introduction of the Act. The total fee receipts were Rx. 102,198, or 1 per cent. less than in the previous year. The receipts from search fees fell from Rx. 6,665 to Rx. 3,136, in consequence of a change in the High Court rules requiring such searches. The expenditure increased from Rx. 56,427 to Rx. 57,926, mainly in consequence of the increase in the number of documents registered.

North West Provinces and Oudh.

There was an increase of 12,805, or about 7 per cent., in the number of documents registered in the North West Provinces and Oudh; the increase was common to compulsory and optional registrations, and also to documents respecting both moveable and immoveable property. The number of registration offices open in the combined provinces at the end of the year was 345; in Oudh all the sub-registrars are non-officials, and in the North West Provinces efforts are being made to substitute separate registrars for *ex-officio* registrars who perform registration duties in addition to their other work. There was an increase of 7 per cent. in the registration fees. Out of 192,659 cases of registration, only seven cases of personation came to light.

light, and nine documents were discredited by the Civil Courts. There was an increase of 9 per cent. in the number of mortgages registered; the number of leases, which was last year described as small, remained stationary; sales of land increased 6 per cent., and wills increased 10 per cent. Penalties for breach of the registration law were fewer; and it seems that knowledge of the requirements of the law in this matter is becoming more general.

The total number of documents registered in the Punjab was 82,072, or 14 per cent. above the previous year's total, while the fee receipts increased by 15, and the surplus by 22 per cent. The advance of business was entirely under the head of mortgages, sales and other documents relating to immoveable property. There was no increase in the number of registered documents relating to moveable property; these latter represent only 11 per cent. of the quantity, and only 6 per cent. of the value of all the registration business. It was said that transfers of land had been more numerous than usual in consequence of a succession of short harvests, which had impaired the resources of a number of the poorer landholders.

The number of documents registered during the year in the Central Provinces was 27,545, or 7.8 per cent. more than in the preceding year. The value of the property concerned was Rs. 896,000. The increase was exclusively in sales and mortgages of immoveable property; and the increase was greatest in the districts of Bhandara and Chanda, where the harvest had been bad. The cost of the Registration Department was 51 per cent. of the receipts, and the net revenue was Rs. 4,029.

The number of registration offices in Lower Burma remained unchanged at 113; and the number of registrations increased from 7,630 to 8,676. The fee receipts rose from Rs. 2,550 to Rs. 2,940. There was a decrease of Rs. 55,000 in the value of the property to which the registered documents referred, as compared with the value in the previous year.

A registration office was opened at Mandalay in Upper Burma, at which 2,270 documents were registered, involving property valued at Rs. 129,728. The fee receipts were Rs. 604, and the expenditure Rs. 65. Among the documents registered at Mandalay were 1,338 sales and 809 mortgages of immoveable property.

Eleven new registration offices were opened in Madras, bringing up the total to 365. The number of documents registered was 633,626, showing the same rate of increase as in the previous year, namely, 4 per cent. The increase was common to all classes of documents. The total value of the property concerned was Rs. 11,995,034 for immoveable, and Rs. 1,139,958 for moveable property. Only 17 registered documents during the year were discredited by the civil courts; of these 15 were rejected, because the executants' title or powers were invalid, and only two were found to have been fraudulently executed. The registration receipts were Rs. 89,883, showing an increase of 4.9 per cent. over the previous year; the expenditure was Rs. 68,572, or 2.1 per cent. below; and the surplus was Rs. 21,311, or 24 per cent. better than in the previous year.

The number of registry offices in Bombay was the same as in the previous year, namely, 242. The number of registrations was 134,788, or 20 per cent. larger than in 1886-87; the increase was partly due to the transfer of business from special registrars under the Dekkhan Agriculturalists' Relief Act to ordinary sub-registrars. The increase took place mainly under the head of compulsory registration, which are 79 per cent. of the whole. The fee receipts were Rs. 39,129, or Rs. 6,797 above the preceding year, while the expenditure decreased Rs. 642. The registration surplus of the year, under all heads, was Rs. 15,589, as compared with Rs. 8,485 in the year 1886-87.

Under the special law for the protection of Dekkhan agriculturists in the four districts of Poona, Sattara, Ahmadnagar, and Sholapur, there was a further decline of 8 per cent., in continuation of a decline of 11 per cent. in the previous year, on the number of registrations, which were 89,893 in all. The decrease was under the heads of sales, mortgages, and deeds of gift of immoveable property; there was an increase in money bonds, sales, and other deeds relating to moveable property. Of the registered sales and mortgages of land, more than half were between agriculturists on both sides, less than half being between agriculturists and money lenders; to more than half of the registered leases of land, money-lenders were parties on one side. The

aggregate

REGISTRATION.

aggregate value of property concerned in these special registrations was Rx. 435,598, or 24 per cent. less than in the previous year. There was a corresponding decrease in the fee receipts; and the net deficit on these registration proceedings was Rx. 2,492, or nearly double the deficit of the preceding year.

JOINT STOCK COMPANIES.

During the year 1887-88, for all provinces of India, the number of new joint-stock companies registered was 125, with a nominal capital of Rx. 1,950,000; and at the end of the year there were in operation 910 companies, with a nominal capital of Rx. 30,250,000, and a paid-up capital of Rx. 22,330,000. These companies work chiefly in the provinces of Bombay, Bengal, and Madras; in no other province did the aggregate paid-up capital of registered companies reach one million. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:—

	Rx. of Paid-up Capital.		Rx. of Paid-up Capital.
Banking and insurance	3,416,000	Mills and presses	9,597,000
Navigation and communication	3,410,000	Tea and planting	3,648,000
Mining and quarrying	1,009,000	Miscellaneous	1,243,000

The companies with the largest aggregate capital were for working up or pressing cotton, jute, wool, and silk, and two-thirds of these undertakings belonged to the Bombay Presidency. The largest increase of the year took place under the head of banking and loan companies.

Bengal.

In Bengal 11 new companies were registered, with a capital of Rx. 537,000; of which five were banking and insurance companies, four were trading companies, two were miscellaneous companies, and one a tea company. Of 21 companies under liquidation, 14, with a total registered capital of Rx. 380,000, were wound up. At the end of the year 1886-87 there were 228 registered joint-stock companies at work, with a paid-up capital of Rx. 9,859,000.

Madras.

In Madras 68 new companies were registered during the year, with a nominal capital of Rx. 386,000. The companies wound up during the year were 176. At the end of the year 374 companies were still in existence, with a nominal capital of Rx. 3,959,000, and a paid-up capital of Rx. 1,639,000.

Bombay.

In Bombay 20 new companies were registered, of which 10 were for working mills and presses. Sixteen companies were in liquidation, of which eight were wound up. At the end of the year 205 joint-stock companies were in existence, with a nominal capital of Rx. 12,493,000, and a paid-up capital of Rx. 9,208,000. Of these, 116 companies, with a paid-up capital of Rx. 6,328,000, were for working mills and presses.

FINANCE.

[The denomination Rx. means tens of rupees.]

THE gross revenue and expenditure of British India in 1887-88 may be thus compared with the figures for 1886-87:—

	1886-87.	1887-88.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.
Revenue -	77,337,184	78,759,744	1,422,610	—
Expenditure -	77,158,707	80,788,576	3,629,869	—
Surplus or Deficit	178,427	2,028,832	Worse by Rx. 2,207,259	

In the gross revenue are included very large receipts, amounting altogether to little less than one-third of the whole, which are derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investment by the Currency Department, the seignorage on coinage, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments, all of which are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, the expenditure includes the cost of collection of revenue, which is frequently enhanced by an increase of the cost incurred in the production of opium and the manufacture of salt, and the expenses of the public works, which necessarily increase as more works are brought into operation. The financial position of the Government can, therefore, be much better appreciated by looking at the net revenue and expenditure, a statement of which is always appended to the Financial Statement annually laid before Parliament. The following is the comparison of the net revenue, that is to say, the gross revenue diminished by the cost of collection and other direct demands, with the net expenditure, that is, the expenditure reduced by the various departmental receipts:—

NET REVENUE.

REVENUE.	1886-87.				1887-88.				NET REVENUE.	
	Gross Revenue.	Deductions.		Net Revenue.	Gross Revenue.	Deductions.		Net Revenue.	Increase.	Decrease.
		Refunds and Draw-backs.	Charges in respect of Collection.			Refunds and Draw-backs.	Charges in respect of Collection.			
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue -	23,055,724	35,036	3,464,252	19,556,446	23,139,292	42,466	3,436,685	19,660,141	103,695	—
Opium -	8,942,976	68	2,729,063	6,213,845	8,515,462	129	2,424,575	6,090,768	—	123,087
Salt -	6,657,644	30,361	436,172	6,141,111	6,670,728	34,461	410,704	6,225,563	84,452	—
Stamp -	3,751,280	45,494	146,815	3,558,972	3,876,298	44,302	163,414	3,668,582	109,610	—
Excise -	4,375,174	58,744	116,730	4,219,700	4,534,655	33,553	127,078	4,374,024	154,324	—
Provincial Rates -	2,999,861	6,850	51,105	2,941,906	3,035,323	7,970	62,138	2,965,215	23,309	—
Customs -	1,246,293	23,118	135,818	1,082,357	1,348,337	32,076	134,891	1,181,370	99,513	—
Assessed Taxes -	1,354,735	27,067	50,158	1,277,510	1,431,436	19,949	28,679	1,382,808	105,298	—
Forest -	1,103,970	1,499	719,765	382,706	1,124,125	2,451	719,794	401,880	19,174	—
Registration -	399,059	1,122	184,845	113,092	311,253	1,094	187,260	122,899	3,807	—
Tributes from Native States,	695,915	Upper Burma, 283	—	695,232	743,597	Upper Burma, 5,531	—	738,066	42,834	—
Deduct,—	54,482,131	214,532	8,084,722	46,182,877	54,781,006	223,932	7,745,218	46,311,866	68,929	—
Assignments and Compensations.	—	—	—	1,446,937	—	—	—	1,468,963	22,026	—
TOTAL NET REVENUE	—	—	—	44,735,940	—	—	—	45,342,843	606,903	—

See page 102 of Financial Statement for 1886-89 (Commons' Paper, 123 of 1888), and page 52 of Financial Statement for 1889-90 (Commons' Paper, 123 of 1889).

• NET EXPENDITURE. •

EXPENDITURE.	1886-87.			1887-88.			NET EXPENDITURE.	
	Gross Expenditure.	Receipts.	Net Expenditure.	Gross Expenditure.	Receipts.	Net Expenditure.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Interest	4,310,403	470,548	3,839,855	5,441,764	746,555	4,695,199	1,055,344	—
Post Office, Telegraph, and Mint	2,145,262	2,027,482	117,780	2,255,629	2,229,546	26,283	—	91,46
Civil Departments	12,698,516	1,461,658	11,236,858	12,906,364	1,495,742	11,410,622	173,764	—
Miscellaneous Civil Charges	4,701,067	848,274	3,852,793	4,761,130	1,006,108	3,155,022	—	697,76
Famine Relief and Insurance	309,020	—	309,020	91,408	—	91,408	—	217,61
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	183,077	—	183,077	80,945	—	80,945	—	102,13
Railway Revenue Account	15,666,427	14,477,769	1,188,658	16,655,746	14,533,366	2,122,386	933,718	—
Irrigation	2,310,654	1,656,705	653,949	2,461,946	1,714,274	747,372	93,423	—
Buildings and Roads	5,201,767	727,574	4,474,193	5,451,049	592,333	4,858,711	384,518	—
Army	19,529,042	985,008	18,540,039	20,417,934	1,080,815	19,357,119	817,080	—
Special Defence Works	325,626	—	325,626	456,017	—	456,017	130,391	—
Provincial and Local Surpluses	67,376,851	22,855,003	44,521,848	70,979,822	23,978,738	47,001,084	2,479,236	—
TOTAL NET EXPENDITURE	—	—	44,557,513	—	—	47,371,675	2,814,162	—

Thus, there was an increase of the net revenue by Rx. 606,903, and of the net expenditure by Rx. 2,814,162, making a net deterioration of Rx. 2,207,259. In the expenditure of 1887-88, however, there was an exceptional payment of Rx. 1,091,427 on account of the conversion of stock (which will be subsequently explained), and the amount by which the result of that year was worse than 1886-87 should only be taken as Rx. 1,115,832.

The most important changes in regard to the revenue were those connected with opium, there having been a reduction of the cost of production in Bengal by Rx. 303,204, while the revenue was reduced by Rx. 111,717 in Bengal, and Rx. 316,581 in Bombay; including the minor provinces, the net result was a diminution of the net revenue by Rx. 123,087. The net receipts from salt were larger by Rx. 204,620 in Bombay, but by only Rx. 84,452 in the whole of India, there having been a considerable falling off in Bengal and the Central Provinces. Excise showed an increase of Rx. 154,324, principally in Bengal, Madras, and Burma: land revenue of Rx. 103,695, the chief improvements occurring in Bombay, Burma, and Madras, while in Bengal there was a large reduction; stamps gave a better result in all provinces, the total increase being Rx. 109,610; customs improved by Rx. 99,513, assessed taxes by Rx. 105,298, and other heads by Rx. 73,098.

Of the total increase of the net expenditure by Rx. 2,814,162, a sum of Rx. 1,091,427, (i.e. 768,497 l. with Rx. 322,930 exchange), was due to the conversion of India 4 per cent. stock, into similar stock bearing interest at 3½ per cent.; the whole amount of the loan was 53,261,820 l., of which 48,858,013 l. was converted during the year 1887-88, the immediate effect being to bring into that year a charge of 662,965 l. (or Rx. 941,549), which otherwise would have been paid in subsequent years, besides 105,532 l. (or Rx. 149,878), for commission and management, though the result was saving of 266,000 l. a year in interest after the conversion was completed. If this exceptional charge be omitted, the net expenditure shows an increase of Rx. 1,722,735 over that of 1886-87. Under the head of Army there was an increase of Rx. 817,080, owing to the augmentation of the forces in India.

the additional payments for stores and the fall in exchange, and there was also an enhanced charge of Rx. 130,391, for the special defence works in the harbours and on the north-west frontier. In Burma the cost of the police was increased by Rx. 368,823, and the charge for buildings and roads by Rx. 442,553. The railway revenue account was worse by Rx. 933,718, the expansion of the receipts not having kept pace with the enhancement of the charges for interest and the working expenses; but, on the other hand, there was a large increase of Rx. 770,773 in the gain by exchange on the capital transactions of the various companies, owing to their enhanced expenditure. The outlay from revenue by the State in the construction of works calculated to afford protection against famine was reduced by Rx. 216,973, and of other Railways by Rx. 102,132. The charge for civil superannuation was increased by Rx. 121,968 (nearly two-thirds of this being due to the fall in the gold value of the rupee); and on all other heads there was a net increase of Rx. 28,080.

The exchange value of the rupee fell from 17·441 *d.* in 1886-87 to 16·898 *d.* in 1887-88. The consequence was that, while the net sterling expenditure was increased by 955,720 *l.*, it needed no less than Rx. 1,982,945 to meet the additional charges. Of the total net increase of Rx. 1,027,225 under the head of Exchange, Rx. 425,332 occurred under Interest, Rx. 73,714 under Civil Superannuation, Rx. 281,602 in the Railway Revenue Account, Rx. 233,505 under Army, and Rx. 13,072 under other heads.

In the following tables the net revenue and expenditure in India of the several provinces under the chief heads are shown for the years 1886-87 and 1887-88:—

FINANCE.

INDIA GENERAL, i.e., the Departments and Districts not administered directly by the Lieutenant Governors and Chief Commissioners of the Provinces subsequently named.

NET REVENUE	1886-87.				1887-88			
	Imperial.	Provincial.	Local.	TOTAL	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	58,836	—	3,272	55,564	75,051	—	2,919	72,132
Salt	1,450,422	—	—	1,450,422	1,428,904	—	—	1,428,904
Stamps	84,738	—	—	84,738	89,969	—	—	89,969
Excise	70,740	—	1,141	71,881	86,904	—	1,062	87,966
Assessed Taxes	124,057	—	—	124,057	135,008	—	—	135,008
Tributes from Native States	219,749	—	—	219,749	225,286	—	—	225,286
Assignments and Compensations	299,058	—	—	299,058	304,499	—	—	304,499
Other Heads	15,750	—	7,782	7,968	4,643	—	7,201	2,558
TOTAL	1,693,734	—	5,651	1,699,385	1,731,980	—	5,044	1,737,024
NET EXPENDITURE:								
Interest	390,844	—	88	390,906	313,672	—	37	313,635
Telegraph	119,141	—	—	119,141	142,617	—	—	142,617
Mint	67,373	—	—	67,373	66,788	—	—	66,788
General Administration	432,263	—	25	432,288	421,400	—	24	421,424
Law and Justice	110,468	—	12	110,480	123,985	—	81	124,066
Police	48,074	—	1,122	49,196	46,620	—	1,062	47,682
Marine	321,647	—	—	321,647	260,167	—	—	260,167
Political	482,383	—	180	482,563	436,851	—	107	437,048
Scientific and other Minor Departments.	242,717	—	418	243,135	246,521	—	258	246,779
Territorial and Political Pensions.	165,200	—	—	165,200	122,297	—	—	122,297
Stationery and Printing	87,412	—	—	87,412	90,331	—	—	90,331
Exchange	26,302	—	—	26,302	744,471	—	—	744,471
Construction of Protective Railways.	200,000	—	—	200,000	—	—	—	—
Railway Revenue Account	4,859,660	—	—	4,859,660	4,568,857	—	—	4,568,857
Irrigation	516,283	—	—	516,283	568,826	—	—	568,826
Buildings and Roads	754,670	—	3,295	757,965	911,676	—	3,072	914,748
Army	7,397,000	—	—	7,397,000	7,775,977	—	—	7,775,977
Special Defence Works	34,903	—	—	34,903	292,233	—	—	292,233
Other Heads	38,431	—	253	38,684	3,100	—	4	3,104
Local Balances	—	—	384	384	—	—	691	691
TOTAL	6,027,599	—	5,651	6,033,250	5,904,061	—	5,044	5,909,105
Surplus	333,865	—	—	333,865	4,172,081	—	—	4,172,081

BENGAL.

Bengal.

NET REVENUE	1886-87				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,549,849	975,504	—	3,525,353	2,845,308	614,204	—	3,459,512
Opium	3,489,756	—	—	3,489,756	3,681,243	—	—	3,681,243
Salt	1,948,488	9,112	—	1,957,600	1,853,095	6,584	—	1,859,679
Stamps	648,902	648,901	—	1,297,803	333,261	998,781	—	1,332,042
Excise	487,401	487,401	—	974,802	782,942	260,981	—	1,043,923
Provincial Rates	—	395,747	385,250	780,997	—	388,933	331,648	720,581
Customs	308,622	—44,490	—	264,131	362,331	—47,106	—	315,225
Assessed Taxes	268,111	72,302	—	340,413	189,936	179,427	—	369,363
Other Heads	—21,386	8,651	—962	—13,697	—18,425	906	—1,621	—19,140
TOTAL	9,676,233	2,553,328	384,288	12,613,849	10,029,691	2,403,710	330,027	12,812,428
NET EXPENDITURE:								
Interest	—53,180	—6,264	—6,119	—65,563	—87,204	—6,709	—5,039	—98,952
Post Office	113,733	—	33,098	146,831	134,857	—	34,157	169,014
General Administration	26,374	159,389	14,784	200,547	27,166	154,288	17,907	199,361
Law and Justice	—	811,781	—	811,781	—	798,695	—	798,695
Police	6,483	403,458	—3,704	406,237	2,948	447,343	—44,813	405,478
Education	—	282,508	2,150	284,658	—	172,758	106,793	279,551
Medical	—	130,756	78	130,834	—	130,513	274	130,787
Territorial and Political Pensions	97,880	—	—	97,880	95,043	—	—	95,043
Civil Superannuation	—13,157	122,112	43	108,998	—16,889	123,407	425	106,943
Stationery and Printing	88,528	83,082	2,672	174,282	91,764	85,802	3,647	181,213
Railway Revenue Account	—150,860	—493	—	—151,353	—13,324	—218,859	—	—232,183
Irrigation	53,938	207,092	—1,258	259,772	—	326,958	—	326,958
Buildings and Roads	55,569	309,470	369,753	734,792	64,131	252,491	306,746	623,368
Other Heads	27,925	—13,405	—8,450	70	8,553	—20,000	—18,450	—29,897
Provincial and Local Balances	—	52,911	—423	52,488	—	131,007	4,486	135,493
TOTAL	248,233	2,534,992	402,624	3,185,849	307,045	2,377,604	406,133	3,090,782
Surplus	428,000	18,336	—18,336	9,428,000	9,721,646	26,106	—26,106	9,721,646

62 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

Assam.

ASSAM.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	162,986	172,287	—	335,273	112,685	223,806	—	336,435
Stamps	35,734	35,734	—	71,468	18,879	56,635	—	75,514
Excise	109,692	109,691	—	219,383	157,388	52,462	—	209,848
Provincial Rates	—	—	50,939	50,939	—	—	49,747	49,747
Other Heads	58,501	89	—140	58,450	50,944	12,406	—201	63,149
TOTAL	366,913	317,801	50,799	735,513	339,844	345,303	49,546	734,693
NET EXPENDITURE:								
General Administration	4,495	18,708	—	23,203	4,683	20,151	—	24,834
Law and Justice	—	46,707	—	46,707	—	46,086	—	46,086
Police	—	84,890	—	84,890	—	89,648	—4,452	85,196
Education	—	13,046	15,082	28,128	—	12,630	15,277	27,907
Construction of Railways	—	21,819	—	21,819	—	15,770	—	15,770
Railway Revenue Account	11,637	14,056	—	25,693	335	14,580	—	14,915
Buildings and Roads	22,887	61,590	85,832	170,309	16,342	54,734	81,110	152,186
Other Heads	29,012	28,630	7,994	46,636	6,750	34,198	8,643	49,591
Provincial and Local Balance	—	—28,576	—1,169	—29,745	—	7,751	—1,257	6,494
TOTAL	49,031	260,450	107,730	417,211	28,110	295,528	99,321	422,959
Surplus	317,882	56,931	—56,931	317,882	311,734	49,775	—49,775	311,734

North West
Provinces and
Oudh.

NORTH WEST PROVINCES AND OUDH.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	4,138,625	831,804	—2,000	4,967,929	4,190,523	726,134	—2,000	4,914,657
Stamps	309,859	309,860	—	619,719	160,370	481,109	—	641,479
Excise	283,242	283,241	—	566,483	409,463	136,488	—	545,951
Provincial Rates	—	167,267	500,699	667,966	—	165,831	498,379	664,210
Assessed Taxes	188,853	59,347	—	248,200	111,233	105,758	—	216,991
Other Heads	69,053	15,510	—181	84,382	58,371	2,208	—500	60,079
TOTAL	4,959,632	1,668,629	498,518	7,124,679	4,929,960	1,617,528	495,879	7,043,367
NET EXPENDITURE:								
General Administration	22,620	128,623	19,664	160,907	22,310	126,114	8,842	157,266
Law and Justice	—	416,148	—	416,148	—	444,776	—	444,776
Police	2,410	341,150	244,591	588,151	2,541	343,970	245,794	592,305
Education	—	20,681	125,491	146,172	—	35,290	125,303	160,593
Medical	—	64,884	35,199	100,083	—	58,644	33,373	93,017
Territorial and Political Pensions	80,624	—	—	80,624	86,888	—	—	86,888
Civil Superannuation	—13,474	135,763	299	122,588	—12,647	137,861	417	125,631
Stationery and Printing	—1,184	49,570	—	48,386	—992	42,820	251	42,079
Construction of Railways	—	160,922	—	160,922	—	65,360	—	65,360
Irrigation	—81,744	19,471	—	—62,273	—81,567	55,468	—	—26,099
Buildings and Roads	32,328	196,343	261,288	489,959	28,547	193,131	240,202	461,880
Other Heads	21,449	—27,363	3,443	—2,471	—6,832	—58	2,948	—4,942
Provincial and Local Balances	—	—12,408	2,288	—10,120	—	—53,090	—4	—53,094
TOTAL	63,399	1,492,784	672,263	2,228,446	55,148	1,455,281	658,126	2,168,555
Surplus	4,896,603	173,745	—173,745	4,896,603	4,874,812	162,247	—162,247	4,874,812

PUNJAB.

Punjab.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	1,137,764	734,613	—100,623	1,771,754	1,178,487	694,665	—102,807	1,770,245
Stamps	167,969	167,968	—	335,937	177,220	177,220	—	354,440
Excise	65,607	65,608	—	131,215	67,163	67,164	—	134,327
Provincial Rates	—	49,066	308,478	356,544	—	50,357	311,515	361,872
Assessed Taxes	90,011	18,941	—	108,952	61,362	47,723	—	109,085
Other Heads	30,399	18,959	—27	49,331	20,443	6,373	—74	26,742
TOTAL	1,491,750	1,054,155	207,828	2,753,733	1,504,675	1,043,402	208,634	2,756,711
NET EXPENDITURE.								
General Administration	16,413	95,406	15,106	126,925	17,138	93,602	11,801	122,541
Law and Justice	—	289,974	—	289,974	—	300,351	—322	300,029
Police	21,558	247,214	—2,311	266,461	21,308	248,907	—2,175	268,040
Education	—	75,351	55,098	130,449	—	63,678	44,431	108,109
Medical	—	51,474	27,420	78,894	—	49,022	25,942	74,964
Militia	73,826	—	—	73,826	68,890	—	—	68,890
Territorial and Political Pensions	44,318	—	—	44,318	42,076	—	—	42,076
Civil Superannuation	—6,834	59,377	182	52,725	—7,036	63,109	772	56,845
Railway Revenue Account	—1,021,481	10,294	—	—1,011,187	—546,442	12,916	—	—533,526
Irrigation	—136,908	—2,493	—109	—139,515	—194,816	—489	—231	—195,529
Buildings and Roads	108,113	212,431	68,555	385,899	204,037	194,406	78,094	476,537
Other Heads	—15,334	37,112	1,287	23,065	—38,130	44,772	3,343	9,985
Provincial and Local Balances	—	3,106	20,714	23,820	—	12,446	7,654	20,100
TOTAL	—916,329	1,079,241	182,742	345,654	—432,975	1,082,720	169,316	819,061
Surplus	2,408,079	—25,086	25,086	2,408,079	1,937,650	—36,318	39,818	1,937,650

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	421,583	200,502	— 33,475	488,610	263,119	246,447	30,549	472,117
Salt	62,231	—	—	62,231	27,556	—	—	27,556
Stamps	71,514	71,514	—	143,028	37,341	112,022	—	149,363
Excise	125,285	125,287	—	250,572	169,541	56,514	—	226,055
Provincial Rates	—	16,664	56,637	73,301	—	16,876	58,448	75,323
Forest	22,956	22,955	—	45,911	27,048	27,048	—	54,096
Other Heads	60,255	12,205	— 40	72,455	60,156	19,060	— 24	69,192
TOTAL	763,824	349,127	23,152	1,136,103	573,761	477,766	21,875	1,073,402
NET EXPENDITURE:								
General Administration	6,310	36,155	3,173	45,638	9,169	37,038	3,374	46,581
Law and Justice	—	80,574	—	80,574	—	83,126	—	83,126
Police	446	128,419	— 9,197	119,674	286	125,870	— 9,330	116,826
Education	—	33,284	19,382	52,666	—	31,670	18,061	49,731
Railway Revenue Account	— 14,575	— 8,102	—	— 22,677	— 70,577	—	—	— 70,577
Buildings and Roads	16,256	11,207	14,120	151,583	9,686	118,648	10,209	145,543
Other Heads	26,328	62,289	506	89,123	18,851	63,137	618	82,600
Provincial and Local Balances	—	— 115,656	— 3,837	— 119,537	—	13,135	— 2,922	10,226
TOTAL	34,765	848,170	24,109	407,044	— 35,585	472,631	27,010	464,056
Surplus	729,059	957	— 957	729,059	609,346	5,135	— 5,135	609,346

Burma.

BURMA.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	848,375	388,273	875	1,237,023	787,678	532,164	796	1,320,638
Stamps	46,533	43,281	—	89,814	53,482	43,191	—	96,673
Excise	128,285	121,580	1,254	251,119	161,477	132,414	1,869	295,760
Provincial Rates	—	—	97,728	97,728	—	—	84,927	84,927
Customs	422,683	141,408	—	564,091	567,977	— 14,522	—	553,455
Forest	56,994	46,405	—	103,399	76,890	59,313	—	136,203
Other Heads	39,902	1,823	— 309	41,416	54,443	— 3,648	— 337	50,414
TOTAL	1,542,772	742,770	99,048	2,384,590	1,701,947	748,912	87,211	2,538,070
NET EXPENDITURE:								
General Administration	35,457	41,021	1,358	77,836	42,332	62,084	1,411	95,827
Law and Justice	26,479	150,994	—	177,473	50,410	138,378	—	188,788
Police	343,836	252,544	33,103	629,483	690,445	278,750	29,111	998,306
Education	110	33,743	13,724	47,577	—	29,678	13,145	42,823
Railway Revenue Account	— 87	— 9,029	—	— 9,116	—	— 45,724	—	— 45,724
Irrigation	13,820	16,922	8,591	39,333	12,608	31,842	1,754	46,204
Buildings and Roads	273,579	118,502	14,248	406,329	678,082	112,513	28,281	818,882
Other Heads	44,107	68,625	6,744	119,476	55,062	75,833	3,471	134,366
Provincial and Local Balances	—	71,743	23,985	95,728	—	77,028	8,568	85,596
TOTAL	737,301	745,065	96,753	1,579,119	1,528,945	750,382	85,741	2,365,068
Surplus	805,471	— 2,295	2,295	805,471	173,002	— 1,470	1,470	173,002

MADRAS.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue	2,986,021	900,082	—20,517	3,662,586	2,862,899	1,093,181	—214,165	3,741,815
Salt	1,274,408	12,012	—	1,286,400	1,301,924	14,433	—	1,316,227
Stamps	282,891	282,891	—	565,782	145,438	426,614	—	572,052
Excise	446,287	446,288	—	892,575	710,224	236,740	—	946,964
Provincial Rates	—	—	649,692	649,692	—	—	687,490	687,490
Customs	123,102	—14,981	—	108,121	153,122	—13,393	—	139,729
Assessed Taxes	126,839	21,340	—	148,179	90,044	74,753	—	164,797
Tributes from Native States	344,643	—	—	344,643	344,643	—	—	344,643
Assignments and Compensation	—114,315	—	—	—114,315	—112,155	—	—	—112,155
Other Heads	—8,122	15,145	—1,624	5,399	—4,779	28,092	—2,348	20,683
TOTAL	5,461,754	1,662,777	444,651	7,569,082	5,480,933	1,870,120	—9,957	7,382,030
NET EXPENDITURE:								
Post Office	—73,518	10,625	—	—62,893	—87,393	10,628	—	—77,365
General Administration	29,100	105,304	14,662	149,066	27,766	96,426	19,781	143,973
Law and Justice	—	425,534	—	425,534	—	424,502	—	424,502
Police	2,647	356,513	—	359,160	2,727	343,071	—	345,798
Education	—	110,252	52,566	162,818	—	303,693	53,064	161,757
Medical	—	109,692	49,186	140,848	—	103,387	48,927	152,314
Territorial and Political Pensions.	109,764	—	—	109,764	103,658	—	—	103,658
Civil Superannuation	—27,509	66,239	474	69,204	—19,772	104,217	416	84,861
Stationery and Printing	27,487	58,884	—	86,371	28,592	80,993	—	109,585
Construction of Protective Irrigation Works.	36,514	—	—	36,514	32,957	—	—	32,957
Irrigation	—81,321	34,834	—	—46,487	—335,471	262,716	—	—62,755
Buildings and Roads	58,662	226,988	280,418	566,068	52,355	189,965	314,335	557,655
Army	4,019,523	—	—	4,019,526	3,921,423	—	—	3,921,423
Other Heads	25,851	48,659	—3,034	76,476	14,671	40,678	467	55,816
Provincial and Local Balances	—	73,689	65,873	144,062	—	105,371	43,160	148,531
TOTAL	4,137,203	1,652,683	454,645	6,244,531	3,740,911	1,860,847	480,250	6,082,015
Surplus	1,324,551	10,094	—10,094	1,324,551	1,750,015	9,273	—9,273	1,750,015

66 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

Bombay.

BOMBAY.

NET REVENUE.	1886-87.				1887-88.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue - - - -	1,434,389	2,031,803	12,702	3,528,894	1,659,051	1,941,833	15,361	3,615,545
Opium - - - - -	2,584,298	—	—	2,584,298	2,267,717	—	—	2,267,717
Salt - - - - -	1,474,864	—92,563	—	1,382,301	1,581,901	5,020	—	1,586,921
Stamps - - - - -	238,685	23,686	—	457,371	116,956	350,967	—	467,823
Excise - - - - -	450,318	450,318	—	900,636	687,593	229,197	—	916,790
Provincial Rates - - -	—	—	262,430	262,430	—	—	271,183	271,183
Customs - - - - -	213,411	—44,279	—	174,132	201,292	4,273	—	205,565
Assessed Taxes - - - -	245,754	61,823	—	307,537	188,445	156,470	—	344,915
Forest - - - - -	54,134	54,135	—	108,269	54,845	54,845	—	109,690
Registration - - - - -	4,240	4,240	—	8,480	7,291	7,291	—	14,582
Tributes from Native States -	88,464	—	—	88,464	130,815	—	—	130,815
Refunds and Drawbacks - -	—36,040	—28,275	—474	—64,789	—47,144	—19,483	—762	—67,394
Assignments and Compensations	—77,710	—872,473	—	—950,183	—78,006	—890,021	—	—968,027
TOTAL - - - - -	6,719,767	4,793,415	274,658	8,787,840	6,770,756	1,839,587	285,782	8,896,125
NET EXPENDITURE:								
Interest - - - - -	—128,784	—5,320	555	—133,549	—146,804	—5,223	603	—151,424
Mint - - - - -	—41,627	—	—	—41,627	—97,310	—	—	—97,310
General Administration - -	42,568	123,287	10,954	175,859	43,517	123,838	10,459	177,814
Law and Justice - - - -	—	449,118	—	449,118	—	50,882	—	440,382
Police - - - - -	5,236	455,555	5,191	465,982	2,419	475,098	6,180	483,697
Education - - - - -	—	131,110	97,216	228,326	—	118,204	100,786	218,990
Medical - - - - -	—	115,994	14,623	130,617	—	120,580	16,353	136,953
Political - - - - -	90,250	—	—	90,250	83,064	—	—	83,064
Territorial and Political Pensions	79,680	—	—	79,680	77,169	—	—	77,169
Civil Superannuation - - -	—22,194	112,359	35	90,200	—21,072	119,733	114	98,775
Stationery and Printing - - -	7,632	49,215	674	57,521	12,538	50,702	989	64,229
Construction of Protective Irrigation Works.	41,219	—	—	41,219	42,271	—	—	42,271
Railway Revenue Account - -	—46,791	1,675	—	—45,116	—105,184	1,851	—	—103,333
Irrigation - - - - -	89,915	—	—	89,915	92,739	—	—	92,739
Buildings and Roads - - -	153,649	403,502	164,729	721,880	98,542	329,750	170,486	598,778
Army - - - - -	2,289,772	—	—	2,289,772	2,405,803	—	—	2,405,803
Special Defence Works - - -	75,729	—	—	75,729	64,465	—	—	64,465
Other Heads - - - - -	—21,146	63,043	—3,077	38,820	—31,402	30,474	—2,544	—3,472
Provincial and Local Balances -	—	—161,369	39,954	—121,415	—	—24,574	41,128	16,554
TOTAL - - - - -	2,615,108	1,738,119	439,956	4,793,183	2,520,755	1,780,815	344,564	4,646,134
Surplus - - - - -	4,104,659	55,296	—55,296	4,104,659	4,250,001	58,772	—58,772	4,250,001

CAPITAL OUTLAY ON PUBLIC WORKS.

FINANCE.

The total capital outlay on railways and irrigation works, the expenditure in England being converted into Indian currency at the average rate obtained for the Secretary of State's bills during the year, was as follows :—

	1886-87.	1887-88.	Increase.	Decrease.
	Rx.	Rx.	Rx.	Rx.
Amount supplied by borrowing or from the Cash Balances, without being charged against the Revenue of the Year:				
State Railways - - - - -	5,123,105	2,251,776	—	2,871,329
Irrigation Works - - - - -	547,379	533,048	—	14,331
TOTAL - - - - -	5,670,484	2,784,824	—	2,885,660
Amount defrayed from Revenue:				
Protective Railways - - - - -	200,000	—	—	—
Other Railways - - - - -	206,635	30,945	—	342,377
Protective Irrigation Works - - - - -	107,979	91,006	—	—
Other Irrigation Works* - - - - -	2,509	2,795	—	—
TOTAL Direct Outlay by the State - - - - -	6,187,007	2,959,569	—	3,228,037
In addition to this, the outlay by companies guaranteed or subsidised by the Government was - - - - -	4,255,753	7,302,340	3,036,587	—
So that the TOTAL Outlay was - - - - -	10,442,360	10,251,910	—	191,450

* Excluding capital outlay on the minor works against which interest is not charged in the Accounts.

The expenditure on construction in 1887-88 was in reality larger on State Railways and less on Companies' lines by Rx. 1,308,000 than is shown in the foregoing figures, in consequence of the transfer of certain railways constructed by the State to the Bengal-Nagpur Railway Company.

DEBT.

The following sums were raised by borrowing in 1886-87 and 1887-88 respectively :—

	1886-87.	1887-88.	Increase.	Decrease.
In India - - - - - Rx.	16,566	5,435,799	5,419,233	—
In England - - - - - £.	4,796,426	—	—	4,796,426

In 1886-87 the usual loan for public works was raised in England; and a loan of Rx. 1,200,000 was also raised in India, to provide money for the construction of the docks at Calcutta and Bombay. The Transfer Loan of 1854, amounting to Rx. 1,145,340, was discharged in 1886-87, nearly the whole being held in England; but the payments were brought to account in India, as the loan was recorded on the Indian register. In 1887-88 a loan of Rx. 2,000,000 was raised in India for public works, and a sum of Rx. 3,500,000 was borrowed from the Gwalior State at 4 per cent. interest.

Reference has been already made to the conversion of the India 4 per cent. stock. On the 19th. of April 1887 notice was given to the holders that up to the 1st of the following June they would be permitted to exchange their stock into a corresponding amount, bearing interest at 3½ per cent., the dividends being payable quarterly, and the principal not being

68 STATEMENT EXHIBITING THE MORAL AND MATERIAL

FINANCE.

being redeemable before 1931. Those who accepted the offer were allowed to receive, with the dividend in July 1887, the additional 10s. per cent., which otherwise would have been payable up to October 1888. The offer having been accepted to the extent of more than nine-tenths of the stock, notice was given in October 1887 that the amount outstanding would be discharged after a twelvemonth, which was accordingly done in the following year.

In 1886-87 the debt was further increased to the following extent, in redemption of liabilities, no money being raised or paid; but no similar transaction occurred in 1887-88.

Stock Issued.	Liabilities Redeemed.	1886-87.
India 3½ per Cent. Stock	East Indian Railway Annuity	£. 2,925
	Sinde Punjab and Delhi Railway Annuity	4,911,621
	TOTAL	£. 4,914,546

SAVINGS BANKS AND OTHER OBLIGATIONS.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India:—

	1886-87.	1887-88.
	Rx.	Rx.
Savings Banks, &c. (net deposits)	720,815	884,715
Loans to Municipalities, Native States, &c. (net repayments)	82,826	—396,944
Other Obligations	53,261	167,155
TOTAL	856,902	654,926

CASH BALANCES.

The cash balances were increased to the following extent by the transactions of the year:—

Increase.	1886-87.	1887-88.
In India Rx.	441,307	687,916
In England £.	554,244	619,868

COINAGE AND PAPER CURRENCY.

The value of the coinage at the Mints of Calcutta and Bombay was:—

	CALCUTTA.		BOMBAY.		TOTAL.	
	1886-87.	1887-88.	1886-87.	1887-88.	1886-87.	1887-88.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Silver	1,074,672	4,705,226	3,541,965	6,083,199	4,616,537	10,788,425
Copper	91,395	125,099	25,733	45,238	117,128	170,337
TOTAL	1,165,967	4,830,325	3,567,698	6,128,437	4,733,665	10,958,762

The receipts and expenditure of the Indian Mints were as follow:—

FINANCE.

	1886-87.	1887-88.
Receipts	Rx. 180,428	Rx. 251,464
Expenditure	80,506	4,001
Net Receipts	99,922	157,463

The average amount of currency notes in circulation, which had been reduced by Rx. 509,108 in 1886-87; rose in 1887-88 from Rx. 14,201,005 to Rx. 16,162,329, showing an increase of Rx. 1,961,234. On the 31st of March 1888 the amount of notes in circulation was Rx. 16,424,380; and the reserve was, in silver coin, Rx. 9,507,963, in silver bullion, Rx. 917,414, and in Government securities, Rx. 5,999,003.

OPIMUM.

IN spite of a steady falling off in the receipts in the last seven years, opium remains the most important source of revenue after the land.

OPIMUM.

The gross receipts in 1887-88 amounted to Rx. 8,525,000, or 4.75 per cent. less than the year before.

This sum was derived from:—

- (1.) The sale by auction at Calcutta of 57,000 chests of provision or export opium (equal, at 140 pounds the chest, to 71,250 cwt.) at an average of nearly Rx. 106 per chest.
- (2.) The issue of 4,935 cwt. of Bengal opium to the Excise Department at the rate of Rs. 3. 2. 0. per pound, for home consumption.
- (3.) The duty, at Rx. 65 per chest, realised in Bombay on 34,884½ chests (43,605 cwt.) of opium, grown in the Native States of Central India.

The quantity of opium actually exported from India during the year was 90,096 chests, or 112,620 cwt., 84.5 per cent. of which went to China, and 14.4 per cent. to the Straits Settlements, leaving about 1 per cent. for all other countries.

Though the poppy grows freely in most parts of India its cultivation in British territory is only permitted, as a Government monopoly, in a tract 600 by 200 miles in extent in the Ganges Valley. The cultivator receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be refined for the China market. The chests of manufactured opium are disposed of by auction at monthly sales which take place in Calcutta, and in order to prevent speculation and to steady prices the quantity to be sold during each year is notified in the previous year. A sufficient reserve is retained to supply the deficiencies of bad seasons. The price is variable. In 1861 the average was as high as Rx. 185 per chest, but since that year it has steadily fallen. In 1886-87 the average was Rx. 112; in 1887-88 it was not quite Rx. 106. Indian opium exported to China has to compete there with the home-grown drug, which is said to be cultivated through the length and breadth of the land. The produce of Szechuen alone has been estimated at 150,000 piculs, or 178,000 cwts., which is nearly double the whole Indian importation into all China. Compared with the out-turn of opium in the eighteen provinces of the Empire, the foreign importation is diminishing in importance. At the same time, the quality of the native Chinese drug has very much improved and it is sometimes as good as the Indian, while it continues to be cheaper. A third cause of the critical position of the

. OPIUM.

the foreign trade is the operation of the additional clause of the Chefoo Convention which came into effect in 1887. Formerly the Chinese import duty on opium was 30 taels (Rx. 9½) per chest, and traders did their best, with more or less success, to evade the dues to which foreign opium was subject in the course of its inland transit; but now that the inland or *lika* dues are commuted for a sum of 80 taels (Rx. 25·3), which is paid at the port of entry with the import duty, evasion is no longer possible, and merchants must be content with smaller profits if they are not to see the richer classes, who have hitherto preferred the Indian drug, take to the much improved and much cheaper native opium, which is subject to less onerous taxation, and sometimes evades the inland duties altogether.

Bengal.

Though the area actually cultivated with opium in Bengal, 536,610 acres, was 4½ per cent. less, the out-turn of crude opium, amounting to 123,042 maunds, was more than 14 per cent. greater than in 1886-87, and the quality was unusually good. This result was due to favourable weather at the time of harvesting the opium. Against a production of 57,500 chests of provision opium in 1886-87 that of the year under review was 69,500 chests for export, and 3,392 cwt. of excise opium. The instructions issued in 1885-86 to reduce the area of cultivation and to confine it as far as possible to the best lands, and the most experienced cultivators are still in force in consequence of the large accumulation of manufactured opium at Calcutta and in the factories.

Bombay.

Formerly the cultivation of opium was permitted in a few districts of the Bombay Presidency and was unrestricted in the Native States; and Malwa opium entered the Presidency by various routes. The result was that large quantities of opium escaped taxation, and the opium excise revenue in Bombay was very small indeed. By the Opium Act, which came into operation in 1878, the manufacture of opium in any part of the Presidency is prohibited, and Malwa opium, which is weighed at certain agencies in the Central India States, can only enter the Presidency by railway and under official passes. The wholesale trade in the drug has been separated from the retail trade, and the systems of licensing retailers has been altered so as to suit the circumstances of different districts.

The Baroda State, which retains the right to cultivate and manufacture opium for its own consumption only, and for export to China, undertakes to assimilate its system and selling prices to those in force in adjoining British Districts. The other Native States undertake to do the same with the supplies which they now obtain from Malwa. In return for their co-operation in putting an end to contraband traffic in opium they are allowed partial or entire remission of the duty, and in cases in which actual loss has been incurred by the chiefs under the new arrangements special compensation has been granted. The result of these arrangements has been the acquisition of a considerable excise revenue, while it is probable that the consumption is less than it was.

The number of chests of Malwa opium which passed the scales (38,462½) were 2,473, or 6·04 less than in 1886-87, owing to the smaller demand from China. Of this number 1,186½ were despatched to Madras and Native States outside Bombay. The remainder, all but 12, passed into that province, together with 1,603 chests of the previous season; 675 were delivered *en route* to licensed opium vendors in British Districts and Native States; and the balance (38,192½ chests) was received into the Government central warehouse at Bombay, making, with 752 already there, a total stock of 38,945 chests, which were thus disposed of: 36,358, or 93·8 per cent., were delivered for export to China; 1,051, or 2·7 per cent., were sold to licensed vendors and native chiefs, or supplied to Government depôts for consumption in the Presidency, making with the 675 already mentioned, 1,726 so disposed of; a small quantity, 120 chests, was consigned to foreign countries other than China, and there remained a balance of 1,421 chests in the warehouse undisposed of.

Opium was issued from the depôts at the uniform rate of Rs. 10 per pound. The licit consumption in British Districts was 142,527 pounds against 150,657 pounds in 1886-87. Baroda opium fell off more than two-thirds, consequently there were no exports to Bombay.

Out of 349 persons convicted of offences against the Opium Act in Bombay, 233 were in illegal possession of opium, 166 were illegal importers, and 31 were selling without a license. There can be no doubt that a good deal of smuggling still goes on.

A comparison of the receipts and charges on account of opium for the year under review and 1886-87 concludes this section. A diminution of Rx. 200,000 in the Bengal receipts was met by a reduction of Rx. 300,000 in the cultivation and manufacturing charges. There is no field for similar retrenchment in Bombay.

GROSS AND NET OPIUM REVENUE.

REVENUE.	1886-87.	1887-88.
Bengal Opium:	<i>Rx.</i>	<i>Rx.</i>
Calcutta Sales - - - - -	6,146,978	6,037,967
Miscellaneous Receipts - - - - -	10,243	6,040
* Excise, India General - - - - -	219	234
Bengal - - - - -	55,184	56,681
Assam - - - - -	41,960	41,087
N. W. Provinces and Oudh - - - - -	43,732	42,730
Punjab - - - - -	3,161	5,177
Central Provinces - - - - -	21,470	20,323
Burma - - - - -	33,273	35,028
Total Bengal Opium - Rx.	6,356,220	6,245,267
Bombay Opium:		
Duty - - - - -	2,583,457	2,267,493
Miscellaneous Receipts - - - - -	3,299	2,702
Total Bombay Opium - - -	2,586,756	2,270,195
Total Gross Opium Revenue -	8,942,976	8,515,462
EXPENDITURE.		
Bengal Opium - - - - -	2,726,605	2,422,097
Bombay " - - - - -	2,458	2,478
Total Opium Charges - - -	2,729,063	2,424,575
Net Opium Revenue:		
Bengal - - - - -	3,629,615	3,823,170
Bombay - - - - -	2,584,298	2,267,717
Total Net Revenue - Rx.	6,213,913	6,090,887

* * These Excise receipts represent merely the cost price of the drug supplied to the various provinces. In addition to this, the provincial profit on opium, shown in the table on page 78, amounted in 1887-88 to Rx. 742,500.

SALT.

SALT.

SALT REVENUE and CHARGES in 1887-88.

	Sales of Government Salt.	Excise on Salt Manufactured Locally.	Duty on Salt Imported from England.	Duty on other Imported Salt, Seaborne.	Duty levied by the Inland Customs Department.	Miscellaneous Receipts.	Upper Burma.	TOTAL.	Charges.	Net Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
India, General	130,230	11,630	-	-	1,382,724	16,551	-	1,547,135	118,231	1,428,904
Central Provinces	27,556	-	-	-	-	-	-	27,556	-	27,556
Burma	-	2,616	38,357	-	-	-	40	41,013	198	40,815
Bengal	-	-	1,455,419	337,676	-	7,821	-	1,800,916	1,237	1,859,679
Madras	251,370	1,175,013	2,154	-	1	14,433	-	1,448,971	132,744	1,316,227
Bombay	46,063	1,690,734	500	535	1,457	6,107	-	1,745,137	158,216	1,586,921
TOTAL, 1887-88	467,221	2,879,993	1,496,469	398,211	2,383,882	44,912	40	6,670,728	410,626	6,260,102
" 1886-87	723,696	2,544,455	1,465,635	513,392	1,372,151	68,315	-	6,587,644	400,172	6,177,472

Salt is imported into Bengal, is manufactured by solar evaporation on the sea coast of Madras and Bombay, and at the salt lakes of Rajputana, while it is extracted as rock salt from the mines of the Punjab.

The rate of the duty on salt was raised from Rs. 2 to Rs. 2. 8. per maund on the 19th January 1888 throughout British India, excepting Burma where the increase was from 3 annas to 16 annas. The change seems to have appreciably reduced the consumption during the last two months of the financial year; the year's consumption amounted to 1,302,650 tons. These figures represent an increase of 22 per cent. in the consumption during the last 10 years.

Bengal.

The importation of salt into Bengal commenced in 1819, but was inconsiderable until the year 1835-36. Government manufacture in the province ceased in 1873-74, and since that date the whole of Bengal, with the exception of Orissa, has been supplied by imported salt, the greater part of which comes from Liverpool; the other sources of supply being France, Ceylon, Jeddah, Muscat, Hamburg, Bombay, Karachi, the Arabian and Persian Gulfs, and, up to the year under review, Italy.

A stock of 1,014,529 maunds was left in bond at the end of 1886-87. The imports of the year amounted to 9,986,076 maunds, a decrease of 3.8 per cent. In Orissa, the only part of Bengal in which the manufacture of salt continues, the out-turn was 103,559 maunds. Old and new stocks together came, therefore, to 11,104,164 maunds. Duty was paid on 9,876,497 maunds, and there remained a stock at the close of the year of 1,175,347 maunds.

Of 8,955,804 maunds of salt which were passed into the interior, 4,083,521 were carried by water, a decrease of 3.2 per cent., and 4,872,283 by rail, or rather more than in 1886-87.

All but 2.4 per cent. of the gross receipts come from the import duty, and the diminution of 5.3 per cent. compared with 1886-87 was mainly under that head.

There were some remarkable changes in the relative proportions and the amounts of the imports from different countries. England's share of the imports, amounting to nearly 100 lacs of maunds, increased from 70 to 70½ lacs of maunds. Germany's fell from 644,000 maunds to 186,000; while the imports from Italy, which were 1,263,000 maunds in 1886-87, disappeared altogether in 1887-88. Bombay sent 557,924 maunds, an increase of 29,497; and Aden, which only made a beginning in 1886-87 with 62,488 maunds, increased her export of salt in the year under review to 389,696. Salt from the Arabian and Persian Gulfs has taken the second place occupied by Italy last year, the imports having risen by 317,669 maunds to 1,192,205. It is possible that the growth of the Aden trade may be checked by the development of Perim as a coaling station.

The Northern India Salt Department deals with the production and supply of salt in the Punjab, North-Western Provinces, Berar, Rajputana, Central India and Behar. In Behar, at present prices, the consumption of Northern India salt ceases and that of imported salt begins. This equilibrium would be affected by one or other source of supply raising the price of salt. Should, for instance, the formation of the Salt Syndicate lead to such a result, the area supplied by imported salt may recede and that of Northern India salt may advance to the point where the increased freight charge on the one side, and the higher cost price of salt on the other, establish a fresh equilibrium.

The population of the provinces of India, falling within the cognizance of the Northern India Salt Department, is estimated at 123 millions of persons. The returns of licit consumption for this population amounted to 475,675 tons, or an average of 8.6 pounds per head, against one of 9.37 pounds in 1886-87, and of 8.21 in 1885-86, the year in which the Sambhar salt sources failed, and the deficiency was met by importations from the Kharagoda works in Bombay.

Of the total quantity of 289,581 tons of Northern India salt issued, 87 per cent. paid full duty; the remainder paid special rates, or was entirely exempted. Sambhar and the Punjab mines supplied 78 per cent. of the duty salt in the proportion of two to one, respectively.

The effect of the higher duty was neutralised, for the small portion of the year during which it was in force, by an immediate falling off in the issue at most of the sources of supply, but the opening of the line to Paehbadra was followed by larger issues of salt at that place.

The season was unfavourable at Sambhar to such an extent that the out-turn was less than half that of 1886-87. The average selling rates at the lake have been reduced within 18 years of British occupation from 10 annas per maund to slightly over 4 annas. A larger quantity was taken from the Punjab mines, but the cost of manufacture was increased by the more stringent requirements of purchasers. The wholesale prices increased to the extent of the higher duty, but not more. In a few places in the Punjab, owing to the completion of a bridge over the Jhelum and the lowering of freights, and in the Central Provinces also, the rise in price was even less than the increase in the rate of duty.

The treaty payments to Native Chiefs, amounting to Rs. 301,000, are not included in the charges shown in the statement of revenue and charges, but come under the head of Assignments and Compensations.

The great increase in the receipts from salt in Bombay was due partly to the higher duty and partly to larger sales of Konkan salt; at the same time the cessation of the exceptional demand from Central India reduced the charges on account of the purchase and carriage of Baragra salt.

At the Government works at Kharagoda and at Bulsar the cost price per maund remained 1 anna 3 pies, with a royalty of 3 pies on salt sent out of the Presidency, and 9 pies on salt used in the Presidency. The average cost elsewhere at the works is given in the margin. The lower price at Shiroda was probably the effect of the opening of the Southern Mahratta Railway. The higher price at Sanikatta was due to reduced stocks. The West of India and Portuguese Railway had been too recently opened to affect prices at Goa.

The wholesale market prices ranged from Rs. 2. 7. 8. per maund in the district of Bombay, to Rs. 4. 1. 8. in Dharwar, in the month of August.

From the statement accompanying it will be seen that the consumption of salt fell off 200,000 maunds, owing to the cessation of the demand from the Sambhar source, but that it still exceeded by nearly 1,100,000 maunds the consumption in 1884-85, before the demand arose; and stocks which had been diminished to supply the demand in question, left off nearly 4½ lacs better than at the close of 1886-87. The quantity of salt imported was insignificant.

	1886-87.		1887-88.	
	a.	p.	a.	p.
Northern and Middle Konkan.	2	7	3	5
Shiroda	9	6	9	2
Sanikatta	6	2	7	8
Goa	—	—	8	11

SALT.

Production and consumption of Bombay salt for four years in thousands of maunds :—

	1884-85.	1885-86.	1886-87.	1887-88.
	<i>Maunds.</i>	<i>Maunds.</i>	<i>Maunds.</i>	<i>Maunds.</i>
Stock in hand on 1st April	2,529	2,788	1,707	1,264
Made during the year	8,500	9,143	9,131	9,881
Total Stock	11,029	11,901	10,838	11,145
Loss and wastage	929	922	973	836
Consumption :				
At full duty	6,725	8,642	7,940	7,091
At reduced duty	587	630	661	717
	7,312	9,272	8,601	7,808
Stock in hand 31st March	2,788	1,707	1,264	1,900

In spite of the large decline in the quantity of salt despatched to other parts of India in 1887-88 the issues were still over two lacs in excess of those in 1884-85. The demand from the Punjab and Oudh ceased entirely, but that for the other provinces and states was not below the issues of four years before.

	1884-85.	1887-88.
	1,000 of Maunds.	1,000 of Maunds.
Local Consumption	495	526
Central Provinces	461	447
North-Western Provinces	617	200
Punjab and Oudh.		
Central India, including Madwa and Rajputana.	516	372
	2,089	1,545

The estimated local consumption for the whole Presidency was 2,813,528 maunds, which, for a population of nearly 20 millions, would give 11.59 pounds per head. In Gujarat, where there is much opportunity for illicit consumption, the rate is 10.33 pounds a head. In the rest of the Presidency it is 12.23 pounds.

The average wholesale price for the Presidency was Rs. 2. 11. 3. per maund, the highest rate being Rs. 4. 1. 8. in the Dharwar District, and the lowest Rs. 2. 8. 0. in Ahmedabad.

Madras.

Up to 1878 salt had for many years been a Government monopoly on the Madras coast. Salt was made in pans by very poor people, and sold to Government, who sold it to the trade and to consumers at a fixed price of 3 annas per maund, plus the duty for the time being. About 1874 the president of the Cheshire Salt Board visited India, and made strong representations against the Government monopoly, urging that free manufacture, under a good excise system, would supply better and cheaper salt to consumers. A commission was appointed to consider the matter in Madras, and they recommended that licensed manufacture under an approved excise system should gradually be substituted for the Government monopoly. The Government of India agreed, stipulating, however, that a sufficient number of Government factories should be maintained, side by side with the excise factories, for the regulation of the quality, the supply, and the price of salt. Salt manufacture on the Madras coast is conducted by solar evaporation, instead of by artificial boiling, as in Burma and Orissa. The outturn, therefore, is liable to be much affected by bad seasons, and under the Government monopoly system a year's supply of salt was generally kept in stock to guard against failure.

The excise system was first introduced on the west coast (Malabar and Canara), and the Goa factories were closed. But the private factories produced

duced a bad salt at a high price; they could not, however, make it pay, and they withdrew from the business. Government factories were not reopened, as good and cheap salt came in large quantities from the Portuguese coast, near Goa. The industry was lost to the Malabar coast; but perhaps the loss was not much felt in those three rich, prosperous districts. The excise system was next introduced into the Tuticorin subdivision of the Tinnevely districts. It answered there very well; superior salt was produced and sold in quantity at prices not exceeding 3 annas a maund. The excise system was then (1883-4) extended to other districts. Reports showed that the change wrought more harm than good to the consumer. Still the change to the excise system was extended to the remaining districts, although it was reported that the selling price of ex-duty salt ruled higher than before. The result of these changes was that by 1887 about 87 per cent. of the salt consumed in Madras was manufactured on the excise system. The selling price ex-duty averaged over six annas a maund, and sometimes reached as high as 14 annas. No stocks were maintained to provide against bad seasons. Steps are now being taken to re-establish Government factories in order to keep down the price of this prime necessity of life, and to secure that adequate stocks of salt are maintained.

Pending decision on the question of reverting partially to the monopoly system, applications for the further extension of the Excise system were not entertained, and the number of factories was as in 1886-87, namely, Excise factories, 40; Monopoly factories, 6.

In all but two divisions the season was most favourable for salt manufacture, but some damage was done by heavy rains later. The quantity received into store was 8,867,644 maunds, representing an increase of no less than 84.39 per cent. compared with 1886-87, and a larger out-turn than that of any of the preceding 10 years.

The consumer continued to derive no benefit by the change from Monopoly to Excise, nor has the latter system relieved the Government from the maintenance of the works. Prices were, however, generally lower than in 1886-87, except in the two Northern Divisions, where, owing to the heavy demand for Ganjam salt for Orissa, prices advanced. They declined, however, as soon as the salt of 1888 came into the market. Some capitalists attempted to restrict manufacture, but periodical sales of Government reserve stocks, and the good season, defeated their efforts. The continued dissatisfaction of the licensees with their position in the hands of the capitalists is regarded by the Government as a hopeful indication of the setting in of a healthy competition.

The year opened with a stock of 29 lacs of maunds, or five months' consumption. The total receipts, including 1,088,694 maunds imported, were 9,979,050; 7,912,953 maunds passed into consumption,* and excluding 318,574 maunds wasted, the balance at the year's close was 4,702,710 maunds, or about eight months' consumption. Even with this increase, however, stocks were lower than they should be.

The net consumption in the Presidency showed a slight improvement, being 1,616,102 maunds, or 15.49 pounds per head, against 15.35 pounds in 1886-87. The sales fell off between 19th January, when the duty was raised, and the end of the year, being 1,518,940 maunds against a five years' average of 1,682,000 maunds in the same period. The consumption per head of the population in the Southern Division is estimated at 18.64 pounds, against 17.76 pounds in 1886-87. It follows, therefore, that there was a falling off, and that the consumption was much smaller in the Northern Division. This was especially the case in Ganjam, where the rate fell from 12.31 pounds per head to 8.27; owing partly to high prices, partly to restriction of sales at the Ganjam Factory, rendered necessary by the depletion of stocks. In the Southern Division, the very opposite was the case.

The year's receipts show an increase of over 2 per cent., but crediting Madras with the duty on imported salt realised in Bombay and Goa, and adjusting the credit sales, the actual improvement was double.

SALT.

The steady development of the fish-curing industry was furthered by a good fishing season. And the weight of fish cured, amounting to 37,495 tons, was 23·4 per cent greater than in the previous year.

Measures are under consideration which, among other things, will provide for—

1. Monopoly factories in localities where an increased demand has arisen.
2. The maintenance of a reserve on Government account of salt, manufactured on the monopoly system in excise factories, by way of checking excessive rise of price.
3. Facilities for sale by the manufacturers on their own account without the intervention of capitalists.
4. Improvement in the quality of the salt.

The administration of the Salt Department in Orissa was still in a state of transition, but the manufacture of 1888–89 was to be carried out under the supervision to the Madras Salt Department. The season was unfavourable, and culminated in a cyclone, which damaged much salt and interfered with the manufacture. In Balasore licensees refused to work under the new regulations, but the falling off in that district and in Kuttack was more than compensated by the resumption of operations in Pari, where the licensees, misapprehending the effect of the new rules, had stopped work in 1886–87.

Sind.

The total quantity of licit salt consumed in Sind amounted to 247,664 maunds, which gives an average of 8 lbs. 7 oz. per head against 8 lbs. in the preceding year; but in a province where great opportunities of illicit manufacture exist the actual consumption is no doubt much larger. The weight of fish cured at the one remaining yard rose from 2,006 to 6,731 maunds; but it is reported that this industry does not benefit the fishermen, on whose account it is encouraged by Government, but only a few firms to whom the fishermen are indebted.

Burma.

The duty in Burma on both imported and locally manufactured salt was raised from 3 to 16 annas. Salt in transit at the date of the imposition of the duty was not liable for the increased tax. It was in anticipation of the heavier import that the gross deliveries of imported salt rose from 45,665 tons in the previous year to 72,406 tons in 1887–88; the estimated produce of the licensed local salt factories was 17,584 tons, making a total of 89,990 tons for the year. The salt revenue rose from Rx. 30,425 in the preceding year to Rx. 42,517 in the year 1887–88.

STAMPS.

STAMPS.

The following table gives the stamp revenue, province by province, for the year 1887–88 :—

	India, General.	Bengal.	Assam.	North Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Sale of Court Fee Stamps. -	24,667	1,026,478	60,199	493,666	241,282	106,237	55,583	370,952	268,850	2,649,914
Sale of Commercial and other Stamps.	21,441	340,353	18,035	160,983	127,642	44,666	31,598	218,953	174,272	1,337,245
Fines and Miscellaneous -	330	14,873	449	4,236	3,590	483	12,492	7,256	45,421	89,139
TOTAL Stamp Revenue of 1887–88 - Rx. }	46,447	1,381,604	78,683	658,887	371,914	153,386	99,673	597,161	488,543	3,876,298
TOTAL of 1886–87 - Rx.	46,054	1,346,318	74,216	636,846	351,450	146,907	92,116	582,063	479,315	3,751,280

The refunds of the year were Rx. 44,000, and the charges of collection came to Rx. 163,000. The increase of revenue is common to all provinces, and

and comes to 34 per cent. for the whole of India. The stamp duties are leviable under Act I. of 1879 (the Stamp Act), which imposes duties on all commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like, and under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts. The only noteworthy facts concerning the stamp revenue of the year were that, in Bengal the increase accrued mainly under court-fee stamps, while the yield from receipt stamps fell off. In Assam, where there was a serious decrease in the stamp receipts during 1886-87, the revenue has now recovered; but the increase was entirely under court-fees. In the North-Western Provinces the increase was shared equally between general stamps and court-fees. In the Punjab there was a satisfactory increase in the general stamp revenue, due in part to the growing trade and wealth of the province, and in part to an increase in the readiness to comply with the requirements of the Stamp Law. The increase in the Central Provinces accrued one-third under general stamps, and two-thirds under court-fees. In Lower Burma there was a decrease in the court-fee receipts; the sale of general stamps by postmasters and by village headmen is making progress in some districts of the province; in Upper Burma the stamp revenue was nearly three times as large as in the previous year. In Madras the increase was shared equally between general and court-fee stamps; part of the increase under the former was due to two unusually large transactions; a saving of Rs. 800 was secured by a rearrangement of duties connected with stamps at Madras. In Bombay the whole increase accrued under general stamps; this is the only province in which, owing to a decrease in litigation, the court-fee receipts fell below the total of the preceding year.

EXCISE.

It would not be possible to prevent the use of intoxicating liquors in a country where the materials from which they are made are everywhere abundant and the methods of manufacture are of the simplest character. The aim of the Government, therefore, is to impose a tax which shall be high enough to act as a check on consumption, but not so high as to drive the people to illicit manufacture.

For the regulation of the manufacture and sale of country spirits several systems of excise are in operation. Under the farming system the privilege of manufacture and sale is let by tender or auction; the farmer, as a rule, subletting his rights in the rural districts and retaining them in the towns.

The outstill system, as applied to rural tracts, resembles the farming system, but instead of the farmer being left to make his own arrangements, the collector, guided by the experience of the revenue authorities, the police, and the trade, and by other information in his possession, fixes the sites of stills and shops, and the prices to be paid for them.

The contract still system is peculiar to the Central Provinces. A still of known capacity is set up at some central place for the supply of a definite area, and the licensed retail shopkeepers have the right to use it on payment of a fixed fee which operates as a duty proportioned to consumption.

The central distillery system, which is applied to large towns and populous districts, means that within a guarded Government inclosure licensees are free to set up stills; the duty they pay, in addition to their license, being proportioned to the strength of the spirits removed to the retail shops of the district. The retail shopkeeper, under this system, pays a monthly or annual fee, which is either fixed by the collector or determined by auction.

Under what is called the "free supply" system any fit person who applies for a license to manufacture and supply country spirits, is free to take out a license, and to compete with other manufacturers for the supply of the licensed retailers. The licensee pays a duty on all spirits removed for transport to the shops, and he undertakes to supply the shops at a fixed maximum

78 . STATEMENT EXHIBITING THE MORAL AND MATERIAL

Excise.

maximum rate per gallon. The monopoly of retail sale is disposed of annually by auction. Under this system, therefore, which came into operation in October 1884, the privileges of manufacture and sale of country spirits are separated, in accordance with the recommendation of the Madras Excise Commission of the same year.

The revenue from toddy is, in most parts of India, raised under the farming system. The toddy farms are, where it is possible, let separately, the object being to put it out of the power of the spirit contractors and shopkeepers to force the stronger drink on those who prefer the lighter; but in some parts of the Madras Presidency, where country spirit is made from toddy, it has not been possible to separate the toddy and the spirit farms, and they are consequently let together.

The following statement, extracted from the Finance and Revenue Accounts, shows the remunerativeness of the various sources of excise taxation in the several administrations of India during 1887-88 :—

	India, General (including England and Exchange).	Bengal.	Assam.	North-West Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Liquors and Drugs, viz. :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
License Fees and Farmers' Rents.	10,236	610,730	23,893	205,150	45,781	67,992	85,027	907,699	105,607	2,142,415
Distillery Fees	15,550	7,095	—	103	114	51,720	433	—	143,358	188,373
Stillhead Duty	50,244	144,191	695	208,924	41,960	24,998	9,095	—	526,282	1,006,989
Duties levied on Drugs	9,499	133,076	22,929	90,641	16,475	47,417	53,002	5,960	26,182	416,121
TOTAL	86,129	925,092	47,517	505,118	104,330	192,127	152,557	913,599	821,429	3,747,898
Duty on Opium consumed in India.	2,817	160,825	102,752	51,571	32,066	39,855	116,076	59,358	119,119	742,439
Acreege on Land cultivated with the Poppy.	—	—	—	—	3,185	—	—	—	—	3,185
Fines, Confiscations, Miscellaneous.	90	658	28	532	365	1,198	187	949	8,040	12,067
Upper Burma Revenue	—	—	—	—	—	—	29,066	—	—	29,066
TOTAL Revenue	89,036	1,036,575	210,297	557,241	139,946	233,180	297,886	973,906	946,588	4,534,655
Charges	1,077	42,652	449	11,290	5,619	7,125	2,126	26,942	29,798	127,078
Net Revenue, 1887-88	87,959	1,043,923	209,848	545,951	134,327	226,055	295,760	946,964	916,790	4,407,577
Net Revenue, 1886-87	71,659	974,802	219,333	566,463	131,215	250,572	251,119	892,575	900,636	4,258,491

Ajmere.

In Ajmere liquor of three degrees of strength is distilled at head-quarters in a central distillery, and sold under a contract for three years by a farmer who guarantees Government a certain revenue, and removes the spirit from the distillery as he requires it. The sales rose in the second year of the contract owing chiefly to the large number of marriages in that year, but fell again in 1887-88 because the high price of the necessaries of life left small margin for the luxuries.

The receipts increased from Rx. 12,500 to Rx. 17,000, and the incidence therefore per head of the population, from 4 annas 4 pice to 5 annas 11 pice; 91 per cent. of the revenue came from country spirits, and nearly 8 per cent. from opium and intoxicating drugs.

The surrounding Native States have shown great readiness to assimilate their duties to ours, by closing their stills near the frontier, and in other ways assisting to put down smuggling.

The number of shops for the sale of spirit and drugs (210) was larger by five than in 1886-87.

Berar.

The Excise revenue in Berar amounted to Rx. 134,931, or Rx. 3,708 less than the year before. The falling-off is attributed partly to combination between bidders, owing to the farms having caused a loss to them in 1886-87.

Coorg.

The demand in Coorg amounted to Rx. 18,443; the increase of Rx. 4,311, which this figure represents, arose from the larger consumption of arrack which was stimulated by the good prices realised in the coffee crop of the previous season. The quantity issued from the central distillery was 54,682 gallons, or 35 per cent. more than in 1886-87.

The

The sources of excise revenue in Bengal are:—

Excise.
Bengal.

1. Liquors, that is, imported liquors, country rum, country spirit, fermented liquors, consisting of tari, the juice of the palm, and pachwai, or rice-beer.

2. Hemp, from which are made ganja, sidhi or bhang, and charas.

3. Opium, and its preparations, madak and chundu.

The modes of taxation are—

1. A license fee, which is either *wholesale*, generally fixed and affecting only imported liquors and rum, or *retail*, and determined by the "auction system," or by the "fixed license system." The auction system applies to the sale of opium and madak (except in six opium-producing districts, where, to keep down illicit opium, a nominal fee is substituted), to all country liquors (except unfermented tari, for the sale of which a license fee not exceeding Rs. 5 is paid), and to ganja, bhang, charas, and mazum.

To prevent fraud and combination the collector does not bind himself to accept the highest bid.

2. A *duty or tax*, in addition to the license fee, on the quantity of the article which passes into consumption. The rates of duty are, per gallon, imported liquors, Rs. 5; country spirits, Rs. 1. 14 to Rs. 5; Bengal rum, Rs. 5; and per seer, flat ganja, Rs. 4. 8; round ganja, Rs. 6. 4; choor, Rs. 6. 8; bhang, 8 annas; charas, Rs. 8; opium, Rs. 16 to 32, this last being the Government selling price, including duty.

3. The third mode of taxation is the licensing of outstills at monthly fees, settled by yearly auctions. These stills were so named from their being worked outside the limits of the area supplied by central or public distilleries. The license covers the manufacture and sale of country spirit, the produce of a single still, at a fixed place. No separate duty is charged, but the upset fee is calculated on the approximately ascertained local demand or consumption of the shop, multiplied by half the rate of duty fixed for country spirits for the district.

There is, besides, a distillery fee of one anna on each gallon of liquor distilled at the public distilleries, as rent and as contribution to the cost of the establishment.

There is only one rum distillery in Bengal, but that liquor is imported from Shahjehanpore and from Madras.

Country spirit is made at the public or central distilleries or at outstills. The former are walled enclosures built and maintained by Government, within which private persons are allowed to set up stills, the outturn of which they dispose of to retail vendors, who pay a duty proportionate to the strength of the liquor. No outstill is allowed within a certain distance of the distillery area limit, and the introduction of outstill liquor within this area is punishable.

Tari vendors either hire the trees themselves, or get their supplies from licensed tappers, who, however, pay no fee for their license. The aboriginal tribes are allowed to brew their own pachwai, or rice-beer, without payment of any fee, but not to sell.

Ganja is grown by license, mainly in Rajshahye, in a small tract with a radius of about 16 miles; its cultivation and storage are carried on under special supervision.

Bhang is made from the hemp plant which grows wild in many parts. For revenue purposes it is dealt with in much the same way as ganja. Charas comes from the North-Western Provinces or from Nepal under a pass. Opium is issued to the retail vendors from every district and sub-divisional treasury on payment of duty at the rate fixed for the district. The term of each license is usually a year, but in some cases it is three years. The annual settlements are made in March. The magistrate must be satisfied as to the character of the license holder.

The gross receipts of 1887-88 were 8.3 per cent. higher than the average of the preceding five years, 7.3 per cent. more than the receipts in 1886-87, and 9 per cent. over the estimate.

80 STATEMENT EXHIBITING THE MORAL AND MATERIAL

EXCISE.

The contributions of the various exciseable articles, and of each division, are shown in the following statement:—

	1886-87.	1887-88.		1886-87.	1887-88.
	Rx.	Rx.		Rx.	Rx.
Country spirits -	479,125	520,512	Burdwan -	164,299	112,171
Ganja -	207,544	224,497	Presidency -	265,455	305,283
Opium -	190,575	198,492	Rajshahye -	63,445	71,196
Tari -	58,931	52,783	Dacca -	76,784	77,082
Imported wines -	20,985	23,304	Chittagong -	22,761	24,903
Pachwai -	17,826	20,122	Patna -	242,885	263,186
Rum -	10,814	8,892	Bhagulpore -	107,860	119,712
Other articles -	16,210	17,602	Orissa -	52,782	53,539
			Chota Nagpore -	59,895	61,470

Calcutta and its suburbs took the largest share, amounting to Rx. 209,063, of which Rx. 115,000 were derived from country spirits, the districts of Patna and Gya coming next with Rx. 51,940 and Rx. 40,138 from the same source. For Ganja the largest figures are: Calcutta, with its suburbs, Rx. 25,000; Patna, Rx. 17,300; Mymensingh, Rx. 18,257; Purneah, Rx. 12,796; Dacca, Rx. 12,179; Bhagulpore, Rx. 10,586. And for opium: Calcutta and suburbs, Rx. 36,318; Balasore, Rx. 16,546; Cuttack, Rx. 14,579; Chittagong, Rx. 12,967; Midnapore, Rx. 12,662. The consumption of this last drug is greatest in the maritime districts and in some of the malarious districts of the interior. It is smallest, judging by revenue, in the poppy-growing districts, where, however, much illicit consumption goes on.

The collections amounted to 99·8 per cent. of the demand, and the incidence of the exciserevenue was two annas five pice per head, or Rs. 1·8·2 for every 10 persons.

The settlements of the excise shops for 1888-89 came to Rx. 656,573, being an increase of 5·2 per cent. compared with the year under review.

The revenue continues to increase in spite of the reduction in the number of every class of shop and licenses but one, opium shops alone being more numerous.

Number of Shops and Licenses.	1886-7.	1887-8.
Distillery shops -	655	570
Out-still shops -	3,603	3,535
Tari, fermented -	16,033	15,816
Tari, unfermented -	3,438	3,235
Pachwai -	2,195	2,157
Ganja -	3,046	2,940
Charas -	265	260
Opium -	2,049	2,319
Madak -	394	363
Chundu -	94	89

The increase of Rx. 12,264 in the receipts from the still-head duty, while at the same time the out-turn declined from 1,179,056 gallons to 1,087,856, or 7·72 per cent., was due to the raising of rates in several districts. The increase of Rx. 22,963 or 7·75 per cent. under license fees of outstills, was the result of breaking up monopolies, greater care in the conduct of settlements, and of the enforcement of adequate upset fees in relation to the working capacity of stills. The falling off in the receipts from country rum was due to the inability of manufacturers to compete with the cheap spirits imported by sea. The improvement under Tari is assigned in different districts to the reduction of country spirit shops; to favourable settlements; to the increased price of country spirits.

Ganja was cultivated on 1,780 beegahs (about 600 acres), and the production was 7,821 maunds; 1,942 ryots were employed in the cultivation. The quantity exported from Rajshahye to other districts in Bengal and to Assam and Cooch Behar was 8,224½ maunds, an increase of 4·46 per cent. The increase in local consumption of 286 maunds, or 4·56 per cent. on the previous year's 6,264 maunds, is attributed to good harvests and the prosperous condition of the people.

An increase in the number of licenses for the sale of opium was accompanied by an increase of 2·8 per cent. in the consumption, this amounting to 1,939 maunds against 1,887 in the previous year. The result of limiting the sale of opium in the district of Chittagong, from which the drug was smuggled across to Arakan, was that whereas in 1884-85 150½ maunds

maunds produced Rx. 15,832 from license fees and duty, in 1887-88 Excise. Rx. 12,967 were realised from 95½ maunds only.

The result of Mr. Westmacott's inquiry into the effect of the introduction of the out-still system into Howrah and Hooghly was a condemnation of the extension of the system to those districts; and a return to the distillery system is under consideration.

The system first introduced in Patna under which the size and capacity of each still and the number and capacity of the vats are regulated by the local demand, which is also the basis for calculating the amount of the upset fee, has been successful, and is now widely adopted.

The accompanying figures show what has been done in the last three years to reduce the capacity of stills, and great care is taken to ascertain the actual demand for spirits and the quantity of materials worked off.

	No. of Out-stills.	Liquid Capacity of Out-stills in Gallons.
1886-87	3,598	111,538
1887-88	3,560	74,788
1888-89	3,444	62,362

During the year, Mr. Buckland was deputed to study the Excise systems of Madras and Bombay with the view of adopting in Bengal any improvements that might be applicable.

In many other directions the suggestions of the Excise Commission are being considered or carried out. The settlements for 1889-90 were to be carried out under the supervision of Mr. Westmacott, whose report, already alluded to, has roused a degree of attention among district officers which cannot fail to foster further improvement.

A larger number of arrests for offences against the Excise laws points to greater vigilance on the part of the police.

In Assam the bulk of the revenue is derived from opium and ganja, and only a minor portion from country spirits, the manufacture and sale of which are regulated on the out-still system.

A fall of 4.75 per cent. in the revenue demand was partly due to the lower bids at the auction sales; partly to smaller consumption of ganja and opium. To this demand, opium constituted 77.89 per cent.; ganja, 10.65 per cent., and country spirits, 9.37 per cent. Rum, imported wines, and pachwai, made up the small remainder.

The loss to the revenue under ganja was almost entirely confined to Cachar and Sylhet, and was attributed to the impoverishment of the people, caused in Cachar by the floods of the previous year. On the other hand, in the Assam Valley district, all but Sibsagar, there was a considerable increase in the receipts from ganja which the Commissioner thinks was partly owing to excise ganja taking the place of the wild untaxed drug. The fall in the revenue demand from opium amounted to 2.53 per cent., and was shared by nearly every district. In Sylhet and Cachar the people were badly off; in the former, too, the retail price was raised, and three shops had been closed for want of bidders at the auction sales. In Cachar, smuggling from Manipur and Bengal is believed to prevail.

The number of shops for the sale of country spirits was reduced from 248 to 229. No limit has hitherto been placed on the capacity of stills, but action in the matter was awaiting the result of inquiries in Bengal. Government had also called for fuller information regarding the cost of making country spirits, the strength of the spirit, the quantity produced and sold, and the profits made by the vendors.

The falling off in the receipts in the North Western Provinces and Oudh amounted to 4 per cent., the deficiency being entirely in Oudh under still head duty. It is attributed to the high prices of food grains, to the smaller number of marriages, and to the exceptional unhealthiness of the year. The following statement applies to the years October to September:—

North Western
Provinces and
Oudh.

82. STATEMENT EXHIBITING THE MORAL AND MATERIAL

EXCISE.

	1884-85.	1885-86.	1886-87.
	Rx.	Rx.	Rx.
Still-head duty on country spirits	180,800	185,600	191,800
License fees for sale of country spirits	114,200	133,600	137,100
Out-still licenses	40,000	41,000	39,100
Still-head duty on rum	24,600	25,500	20,800
Licenses for sale of hemp drugs	54,900	60,300	67,100
Opium	63,400	63,800	64,300
Tracts under farm	18,200	20,400	18,400
Tari	9,600	10,500	10,600
TOTAL	505,700	560,700	555,200

It will be seen that the smaller consumption indicated by the still-head duty was not accompanied by diminished receipts for license fees. The contracts were taken at the close of the preceding year with the evident anticipation that the prosperous trade of 1885-86 would continue.

The revenue from the sale of hemp drugs continues to advance in spite of the efforts of Government to restrict the consumption by keeping down the number of shops. Ganja is imported from the Central Provinces, Bombay, Berar, Gwalior, and other native states. The hemp plant from which it is manufactured does not appear to be much grown in the North Western Provinces and Oudh. It was proposed to levy a duty on the importation of ganja, but the Board of Revenue decided that it would be very difficult to make effectual arrangements embracing the large tract of country in question, while any attempt of the kind might produce a serious diminution of the license fees.

Higher receipts from opium appear to be due to the discontinuance of issues of Malwa opium which the people disliked, and which was the cause of much of the smuggling of Bengal opium.

Punjab.

Nearly 63 per cent. of the gross revenue from Excise in the Punjab was contributed by liquors, 26.6 by opium, and the balance, 10.6 per cent. by hemp drugs.

The income from opium and drugs was almost stationary, but that from liquors was 5 per cent. higher than in 1886-87; 87.3 per cent. of the liquor revenue comes from still-head duty on country spirits and licenses for the sale of the same, and of the opium receipts 84.2 per cent. is realised from licenses for sale.

The consumption of rum, local and imported, has risen from 17,79 gallons to at least 24,101 gallons in three years without apparently affecting the consumption of country spirits.

Important changes in the Excise administration are under consideration and steps have already been taken towards the concentration of distilleries and reduction of establishments, and towards the suppression of smuggling and illicit distillation which are prevalent in portions of the province.

The closing of madak and chundu shops in Peshawar was supported by the public opinion of the better portion of the population.

Central Provinces.

The Excise income of the Central Provinces, taking the average of five years, amounts to Rx. 256,000, and it is realised under the following heads, country spirit contributes 58 per cent., opium 34.5 per cent., ganja 6.3 per cent.

cent., tari 7.5 per cent., and foreign liquors the small remainder. About Excise. Rx. 10,000 besides are paid by feudatories or zemindars, chiefly for opium supplied at fixed rates.

For the manufacture of country spirits there were in 1887-88, 35 central distilleries, 118 contract stills, 1,683 out-stills, the material for distillation being the flower of the mohwa tree. The first-named supply the towns, out-stills the rural tracts, while contract stills are introduced in some districts to relieve the pressure of competition set up by the out-stills; and in some cases they take the places of the more expensive central distilleries.

Central distilleries and contract stills are built and maintained by Government at places where daily official supervision can be secured.

At contract stills control is limited to taking a daily fee upon each still in use, roughly proportioned to the capacity of each still.

Out-stills are erected by distillers at their own expense on sanctioned sites, and do not require more than occasional inspection. The limits of manufacture are the capacity of the still and the number of licensed shops to be supplied. Still-head duty in this case is merged in the payment for the right to sell the liquor distilled.

The right to retail opium at shops, for which licenses are issued, is annually disposed of by auction; the shops being grouped in circles. Licensees obtain their supplies from the Government treasury at Rs. 22 per seer.

The cultivation of ganja is permitted by license in a very restricted area, and cultivators are required to bring their crops into the Government Store. The drug is disposed of by tender to the wholesale vendor who pays as much as he can afford over the fixed duty of Rs. 2 for every seer, and is bound to supply the retail vendor at Rs. 3 a seer. The right to retail ganja is sold by auction as in the case of opium.

So also is the right to manufacture and sell tari at certain specified shops, the contractors making their own arrangements with the owners of the palm trees.

The Excise demand for 1887-88, Rx. 252,079, represents a falling off of Rx. 25,904, or 9.3 per cent., which was due mainly to the bad harvests of 1886-87 at the close of which year contracts were entered into. To the loss due to lower bids for licenses was added a further loss from the direct duties on consumption of opium and ganja. The out-turn of the Sudder distilleries, amounting to 547,455 gallons, was as nearly as possible the same as in 1886-87, but in the latter year there had been a large diminution in the consumption, and the contractors had lost heavily. In the districts served by the out-still system there appears to have been a real decrease of consumption. In two of these districts mohwa was scarce, and in all, the aboriginal population through the failure of their main crop, millet, had less to spend on liquor. This would account too for the smaller consumption of ganja.

The consumption of opium increased in two districts where the Bengal-Nagpur Railway is under construction, and in Hoshungabad where effective action had been taken against the smuggling of opium from beyond the frontier. The great abettors of this illicit traffic are the licensees who, under cover of their license, deal largely in opium from Native States and Berar, where the price of the drug is much less than in the Central Provinces. After the successful prosecution of four notorious offenders in Hoshungabad the sale of the licit drug nearly doubled. The number of permanent shops put up to auction was as follows: country spirits 8,021, opium and madak 1,229, ganja 1,029, tari 986. The increase of 74 shops for the sale of country spirits was nominal, as 78 remained closed during the year.

In spite of a larger number of prosecutions for offences against the Excise laws it is believed that smuggling of opium within the province is on the increase, and that the only way to check it is to watch the monthly sale at every licensed shop.

EXCISE.

Burma.

In Lower Burma the Excise revenue increased by Rs. 35,236 or 13½ per cent. over the receipts of the preceding year. Of this increase Rs. 19,918 accrued under the head of Opium. The liquor Excise revenue advanced by Rs. 15,307, against which must be set a reduction of Rs. 6,109 in the Customs duty on liquors. There was no increase in the number of out-stills, which remained at 49. The rate of still-head duty was raised at the end of the year from Rs. 3 to Rs. 4 per gallon. It was found that there was much illicit selling of opium. The increase in the opium and liquor revenue was attributable to the high price of produce, to the restoration of order, and to the influx of many Indian and Chinese immigrants. There was a great increase in the number of convictions for drunkenness in the town of Rangoon, but no increase in the country districts. Five-sixths of all the convictions in the province for drunkenness occurred in the town of Rangoon.

Madras.

The abkari revenue in the Madras Presidency is derived from the following sources:—

- I. The taxation of the manufacture and sale of country spirits, or arrack.
- II. The taxation of the sale of toddy.
- III. The proceeds of the licenses for the sale of foreign spirits, wines, and beer.
- IV. The receipts from fees for manufacturing licenses for the distillation of spirits by the European process, and for the establishment of breweries.
- V. The sale by auction, on the farming system, of the monopoly of the manufacture and vend of intoxicating drugs as defined by the Abkari Act.
- VI. The pass duty on, and rents of farms for the sale of, abkari opium.

The revenue from the taxation of country liquor, including spirits and toddy, is collected under the following heads:—

Country Spirits.

1. License fees of

{	Private distilleries.
{	„ warehouses.
{	Wholesale vend depôts.
2. Excise duty on country spirits.
3. Vend rents of

{	Rural farms.
{	Independent town shops.
4. Rent for the privilege of manufacture and vend of country spirits combined.
5. Revenue derived in

{	License fees.
{	Rentals.
{	Direct Government management.

Country Spirits and Toddy combined.

6. Joint rents of country spirits and toddy farms.
7. Free tapping license fees.

Toddy.

8. Rents of

{	Toddy farms.
{	Independent toddy shops.
9. Free tapping license fees.
10. License fees of toddy shops.

The "Monopoly" system gives exclusive privileges of manufacture and sale, the first being disposed of by tender for a large area; the second by auction for a small area, or in certain towns for separate shops. The vend farmers are bound to purchase from the manufacturing monopolists, paying fixed rates of still-head duty, to maintain depôts when the consignments are verified by a Government officer, and to open as many shops as the Collector may consider necessary. The system was in force in the districts of Ganjam and Nellore, in the coast taluks of Vizagapatam, the upland taluks of the Kistna district, and the town of Masulipatam.

No exclusive privilege of manufacture or supply is assigned under the "Free supply" system, but licenses for one and the other are granted to any approved person who will pay the prescribed fee and maintain suitable buildings. The privilege of sale is disposed of by auction. For the supply of remote tracts and to furnish a necessary link between the distiller who cannot afford to sell small quantities, and the petty farmer or shopkeeper who cannot buy large quantities of liquor, licenses are issued for the wholesale vend of country spirits. This system was in force in 15 districts throughout the year, and was introduced in South Arcot from the 1st January 1888.

The farming system was in force only in the inland taluks of Vizagapatam district.

In certain districts where spirits are largely, if not entirely, distilled from toddy, arrack and toddy are rented out conjointly. Elsewhere throughout the Presidency the manufacture and sale of toddy within a certain area is assigned to the highest bidder, the renter obtaining his supplies for the most part from trees within the area leased. In certain important towns the toddy shops are sold separately.

In the city of Madras a tree tax was introduced on the 10th October 1887, shops paying a fixed annual license according to the estimated value of the sales. The object of the tree tax, which it is in contemplation to substitute gradually for the farming system, is to raise the toddy revenue in course of time to an amount at least approximately corresponding to the alcoholic strength of the toddy itself, and to diminish the inducement to consumption held out by the extreme cheapness of the liquor compared with arrack. The rates of the tree tax were Re. 1. 8. per half-year for each cocoa-nut tree, and Re. 1 for the whole tapping season on each palmyra and date tree.

In the Agency tracts toddy is untaxed and left free to the people. For country spirits different systems are in force. The Khonds in Ganjam may distil spirits free for home consumption, but not for sale; for the supply of the rest of the population in that division licenses are granted to a fixed number of distillers. Several of the Agency tracts in Vizagapatam are leased to renters.

Foreign liquor includes "country beer," which pays a duty of one anna per gallon, and "spirits manufactured in the country after the European methods," which are excised at the imported spirits rate. Brewers pay a license fee. Their accounts are periodically examined, and samples of their beer are occasionally analysed.

Opium is imported from Malwa by licenses granted on the recommendation of collectors, and the consignments are duly checked. The monopoly of the retail sale of opium and of the manufacture of intoxicating drugs from opium, and their sale, is sold by auction on the farming system. In the feverish hill tracts of the northern divisions the people obtain opium at a lower price than elsewhere.

The excise tracts were supplied during 1887-88 by 13 distilleries, working under the free supply, and seven under the monopoly system. There were 73 wholesale shops or depôts.

Excluding the Kistna District and Mangalore, for which statistics are not available for comparison, the quantity of spirits, reduced to proof, consumed in excise districts was 942,663 gallons, being an increase in the year of 124,497 gallons, or 15 per cent., though the number of shops decreased from 10,022 to 9,944.

The average consumption per head rose from .023 of a gallon to .024 of a gallon in the rural parts, and from .224 to .256 of a gallon in the towns. There was on an average one rural shop to every 10.3 square miles and 2,290 persons, against one shop to 10 square miles and 2,261 persons in 1886-87. The increase of consumption may generally be ascribed to the

EXCISE.

low prices of food grains, in parts of the Presidency; to the suppression of illicit traffic by the newly organised preventive establishments; to vendors lowering their prices; and to consumption resuming its normal level after the disturbance caused by the introduction of the new system.

The largest relative increase, that in the town of Madras and the Chingleput district, was chiefly due to the temporary strike among the toddy drawers on the introduction of the tree-tax, which created a larger demand for country spirits and Colombo arrack.

There is stated to be no reason to believe that the increase in the sales was in any way the consequence of undue encouragement of consumption by Abkari arrangements. The endeavour of the vendors to force consumption by reducing prices will probably be met by an enhancement of the fixed duty.

The taxation per gallon (L. P.) was Rs. 4.83, a slight decrease, but the still-head duty rose from Rs. 2. 12. 0. to Rs. 2. 13. 10. No trustworthy statistics of consumption are obtainable from the farmed districts, but the number of stills, which in 1885-86 amounted to 7,343, and in the following year to 3,071, was further reduced in 1887-88 to 2,585.

Up to 1884-85 Colombo arrack was imported on Government account and supplied to shopkeepers at a fixed rate. Importation is now left to private enterprise, and the right of vend is put up to auction. The tariff rate was raised in January 1887 from Rs. 4 to 5, and while the imports are 3.5 per cent. less than in 1884-85, the revenue is nearly 21 per cent. greater.

The current demand for the year was, under spirits, Rx. 911,340; opium, Rx. 65,957; total, Rx. 977,297. It was the largest on record, and 6.2 per cent. more than the demand in 1886-87.

Taking the spirit and toddy demand alone, arrack or country spirit contributed 48.34 per cent; toddy, 39.4 per cent.; joint arrack and toddy, 8.85 per cent.; foreign liquor, 3.36 per cent.

A large increase in the toddy demand was due to the higher rentals obtained for the farms and shops on the new leases. Nearly 60 per cent. of the arrack revenue of excise districts was levied in the shape of excise duty, and 40 per cent. in the shape of rents for the privilege of vend, against 52 and 48, respectively, in 1886-87. Speaking of the revenue as a whole, its increase was largely due to improved administration.

One brewery was at work in the Presidency and turned out 570,240 gallons, 90 per cent. of which was issued to the Commissariat Department.

The quantity of opium consumed, 66,824 pounds, was less than in 1886-87; nearly 86 per cent. of the consumption being in the four northern districts. The highest rate of consumption per head of the population was in Godavari (716 of a tola), Vizagapatam coming next with 268 of a tola. A tola is $7\frac{1}{2}$ dwts.

Bombay.

The principal sources from which the excise revenue is raised in the Bombay Presidency are as follows:—

1. Fees for the privilege of selling imported foreign liquor.
2. Still-head duty on the spirit issued from public or central distilleries.
 - Fees on the retail of country spirits.
 - Fees on the distillation of toddy spirit.
 - Fees on the manufacture and retail sale of spirit at out-stills.
 - Tree tax on toddy-producing trees.
3. Fees on the manufacture and sale of intoxicating drugs other than opium.

The systems in force for raising the revenue from country spirits are briefly as follows:—

1. The still-head duty, public distilleries, and license fee system. This has long been in force in the town and island of Bombay.
2. The still-head duty, central distillery, and guaranteed minimum revenue system. This has been introduced at various dates since the passing of the Bombay Abkari Act, v. of 1878, into 18 districts and parts of two more.

3. The still-head duty, public distilleries, and extra percentage system, in the districts of Thana and Kolaba since the 1st of January 1888. EXCISE.

4. The out still and lump sum farming system. This has long been in force in the districts of Ratnagiri and Kanara, excepting one taluka of the latter, and in two talukas of the Panch Menals. The difference between public and central distilleries is that in one no single individual holds the exclusive privilege of manufacturing liquor, and that in the other the monopoly farmer has this exclusive right of manufacture for the requirements of his farm.

Several important changes in the excise administration took place in 1887-88.

The negotiations with the Gujarat States were completed. In some the Abkari revenue has been leased to the British Government; in others the central distillery and still-head duty system has been introduced. To certain villages and talukas isolated in British territory spirit is to be supplied from the nearest British central distillery. A shopless belt has been established along the frontier, and in one case the number and position of liquor shops has been fixed permanently. The check to smuggling effected by these measures enabled the Government to extend the central distillery still-head duty and minimum guarantee system, and thereby still further to diminish the area under the system of out-stills.

In Thana and Kolaba the minimum guarantee, which is sometimes charged with stimulating consumption, has been discontinued, and a plan substituted by which farms are given to approved tenderers, who offer the highest percentage over and above the still-head duty issued to them from the distilleries. The object of the change is to secure, with the aid of competition and local experience, the highest possible revenue on each gallon consumed. The weak point of the system is that the tender may be too high to leave the farmer any profit, who will then curtail his transactions with the distillery, and either, under the cover of his monopoly, deal in illicit liquor, or fail to supply the public. In the same two districts public toddy distilleries have been substituted for the monopoly of manufacture where it existed, and tapping licenses have been introduced. In Ahmedabad the toddy farm was abolished in favour of a license system. In Bombay city licenses for tapping and for "tree-foot" booths were issued separately, instead of together as heretofore, the object being to limit the number of drinking places.

In Sind the farming system was abolished, in spite of the strong opposition of the farmers, and a new system introduced, with two central distilleries for the province, somewhat similar to that in force in the Presidency proper; but the Commissioner doubts whether the change is suited to the circumstances of Sind.

Nearly 94 per cent. of the revenue was contributed by country liquor; not quite 3 per cent. by intoxicating drugs. The share of the Presidency proper was 93½ per cent., of Sind 6·21 per cent. An increase under country liquor in Bombay city was due to larger imports of toddy spirit from the Dadar distillery; that in Poona to higher still-head duty, and a greater consumption induced by the prevalence of cholera. In Belgaum also a higher rate of duty increased the receipts, and the suppression of illicit distillation produced an apparent increase of consumption. In several districts the revenue fell off owing to changes of system in some cases, to a reaction from undue competition in others.

Nearly 30 per cent. of the entire realisations was contributed by the city and island of Bombay. Of the remaining districts, Surat and Broach stand first, with 11 per cent. and 9·7 per cent. respectively, Khandesh and Poona give about 7 per cent. each. The averages of consumption of country spirit also place Bombay and Surat at the head of the list, with 40·3 drams, and 23·6 drams per head of the population; Thana, Kolaba, and Khandesh coming next, with between 14 and 15 drams each; and then Kaira and Poona, with eight drams per head each.

The change in Sind from the farming system to that of central distilleries makes it possible for the first time to know what was the licit consumption during the year. It amounted to 102,444 gallons.

Towards

CUSTOMS.

CUSTOMS.

Towards the close of the financial year (10th February 1888), an Act was passed subjecting imports of petroleum to a duty of six pice per Imperial gallon, with the following exemption—petroleum of which the flashing point is at or above 200° Fahrenheit, and which is proved to the satisfaction of the Customs Collector to be intended exclusively for the batching of jute or other fibre or for lubricating purposes. The proceeds of this duty were, during the seven weeks, Rx. 13,709. The gross collections of other import duties were as follows for two years:—

	Arms, Ammunition, &c.	Liquors.	Opium.
	Rx.	Rx.	Rx.
1886-87 - - -	21,711	488,197	428
1887-88 - - -	22,370	527,792	255

The subject of duties on salt has been dealt with elsewhere.

The increase under liquors followed on the raising of the duty on spirits by an Act passed 14th January 1887 from Rs. 4 to Rs. 5 per gallon of London proof.

The export duty on rice produced Rx. 756,498, against Rx. 708,412 in 1886-87; of which Rx. 288,521 accrued on exports from Bengal, Bombay, and Madras, and the remainder (Rx. 467,977) on exports from Burma.

PROVINCIAL RATES.

PROVINCIAL
RATES.

Provincial rates are levied for the most part on the land. They are imposed under the law to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in Burma for village police. In the temporarily settled provinces the rates take the form of a per-centage on the land revenue, and the revenue payers and tenants have to pay that per-centage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. The total receipts under this head were Rx. 3,035,323 in the year 1887-88, as against Rx. 2,999,861 in the preceding year; about one-half of the whole pertains to the provinces of Bengal and Madras; in the latter province the system of local funds and local administration has been carried out successfully for many years. In Bengal more than half of the rates belongs to the provincial Government; in the North-Western Provinces nearly one-quarter is similarly credited; in other provinces the whole, or almost the whole of the provincial rates income is spent locally on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal they may be increased by votes of the district boards within the legal maximum, or by alteration in the quinquennial valuations of the rental. The provincial rates are collected punctually with the land revenue and by the same agency; there were no notable arrears at the end of 1887-88.

The following is a table of the rates and cesses collected during the year :—

	India, General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
REVENUE.										
District Local Fund :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Cess on Lands for expenditure on Roads, Schools, Hospitals, and general purposes.	2,107	34,382	50,115	433,530	197,039	27,563	89,157	435,915	255,904	1,834,232
Provincial :										
Cess on Lands for expenditure on Roads, Schools, &c.	—	32,019	—	33,061	—	—	—	—	—	415,930
Cess on Lands for Famine Assurance, Canals, and Railway.	—	—	—	162,833	66,711	12,962	—	—	—	242,506
Cess on Lands for District Post.	—	34,323	—	3,673	940	3,379	—	—	—	42,320
Cess on Lands for Village Service and Pathways.	8,337	—	—	—	113,537	31,219	—	247,617	25,054	420,664
Assessment on Wards' Estates for Establishment Charges.	—	10,315	—	—	44	—	—	—	—	10,759
Miscellaneous	2,603	31,320	—	31,768	—	—	8	4,058	—	69,762
TOTAL Receipts	8,052	805,824	50,115	664,835	378,671	75,123	89,165	687,490	275,958	3,035,323
Refunds and Charges	—	39,019	569	1,177	16,385	25	8,619	2,343	5,466	70,193
Net Receipts, 1837-38	8,052	766,805	49,546	663,708	361,786	75,098	84,543	685,142	270,492	2,965,215
Net Receipts, 1836-37	7,604	778,462	50,709	667,785	356,498	73,383	97,456	648,068	261,956	2,941,906

INCOME TAX.

By Act II. of 1886 an income tax was imposed, with effect from the 1st of April of that year. The principal provisions were that incomes derived from salaries, pensions, and interest on securities, if amounting to Rs. 2,000 per annum, should pay 5 pies in the rupee (2·6 per cent.), and if less than Rs. 2,000, 4 pies in the rupee (about 2 per cent.); that companies should pay 5 pies in the rupee on their net profits; and that income derived from other sources should pay according to a graded scale from Rs. 10 on Rs. 500, to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being, as in other cases, 5 pies in the rupee. All incomes of less than Rs. 500 a year were exempted, and the tax was not levied on agriculture (which was otherwise taxed under legislation imposed in 1877-78), or on military salaries of less than Rs. 500 a month.

In 1887-88 the net receipts from the tax, after deducting refunds and charges of collection, were Rx. 1,382,808 (or Rx. 105,298 more than in the previous year), of which Bengal paid 26½ per cent., Bombay 24½, the North-West Provinces and Oudh 15½, Madras 12, the Punjab 8, the Central Provinces 3, and Assam 1½, while the remaining 9 per cent. was derived from the collections in Ajmere and Coorg, and from officers serving immediately under the Government of India, or in political employment in the Army, or the Public Works Department throughout India. The smoother working of the machinery for the collection of the tax was illustrated by a reduction of the number of objections from 100,428 to 72,571, of the amount refunded from Rx. 2,707 to Rx. 1,995, and of the cost of collection from Rx. 50,107 to Rx. 28,679.

It is reported that complaints are directed rather against the levy of such a tax at all than against the manner of its working. In Bengal 41 per cent. of the 19,975 objections preferred against assessments were wholly or partially successful; the proportion of persons assessed was one to 633 in the whole population. Incomes ranging from Rx. 50 to Rx. 75 a year, or the lowest class of incomes liable to the tax, yielded a larger share of the tax than any other class, or about 15 per cent. of the whole receipts. Sale of attached property of income-tax defaulters took place in 477 cases out of 100,238 assessments, or less than ½ per cent. of the whole. Taxation under Part IV. of the Act upon professions, commerce, trade, and property, yielded 70 per cent. of the collections in Bengal. In the North-Western Provinces

90 .STATEMENT EXHIBITING THE MORAL AND MATERIAL

INCOME TAX.

Provinces, as elsewhere, the assessments of the previous year were taken as the basis for the operations of 1887-88; but the lists were revised with much care, and inequalities were to some extent redressed. The receipts decreased by Rx. 2,000, and the charges were reduced by Rx. 5,600. Out of the gross income-tax collections of Rx. 213,000, in the North-Western Provinces, Rx. 28,000 were paid by Government servants and pensioners, Rx. 9,000 by servants of companies, public bodies, and other employers, Rx. 1,800 on profits of companies, Rx. 3,800 on the interest of securities, and Rx. 166,000 under Part IV. of the Act. It was under this last category that receipts decreased. In one district, Hamirpur, where the local officers in the previous year had feared that over-assessment took place, the income-tax demand was reduced by 18 per cent. as compared with the assessment lists of the year 1886-87. The number of objections against assessments fell from 31,340 in the preceding year to 22,466; and the percentage of successful objections fell from 32 to 26. Writs of demand were issued in 5,858 cases; 31 persons were arrested and two were imprisoned; and in 215 cases attached property was sold for arrears of income tax in the North-Western Provinces and Oudh.

VII.

SURVEYS AND SETTLEMENTS.

THE work of the survey of India is divided under five heads, namely—

SURVEYS.

1. Trigonometrical Survey.
2. Topographical Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

Out of 26 survey parties employed during the year, only one party was engaged on trigonometrical work. They carried secondary triangulation for 370 miles along the Coromandel coast as far as the Tanjore District; the work is intended as a basis for marine survey operations. Some triangulation in extension of the great Indian triangles had to be undertaken in Baluchistan as a basis for topographical maps there, and the new province of Upper Burma has still to be covered with triangles.

Trigonometrical

The number of parties engaged on topographical work, which was reduced from ten to eight in the previous year, has now been brought down to six, which accomplished in all 15,673 square miles of topographical survey. Party No. 10 completed 934 square miles of survey in the Southern Mahratta Country, besides doing a quantity of detached forest survey in the valuable teak forests of Kanara, where the features of the country and the character of the forest rendered the work both difficult and costly. Party No. 17 did 1,085 square miles of topographical work in Guzerat, besides 285 square miles of detailed forest survey in the jungles of Thana and Nasik. Parties Nos. 15 and 16 continued the Baluchistan survey, accomplishing in all 11,977 square miles of topographical work, besides triangulation, and also some special surveys of towns and cantonments. The cold and snow in winter, as well as the difficulty in getting supplies, were extremely trying to these parties. Party No. 18 surveyed 977 square miles in the Himalayan districts of Kangra, Simla and the Native States pertaining to those districts. Party No. 19 did 4,535 square miles of triangulation, and 1,284 square miles of topographical survey in the Madura district and the States of Travancore and Cochin of South India; this area included sundry forest areas which are to be mapped in detail. The cost of the Himalayan work and of the Baluchistan surveys was considerably cheaper per square mile than in the previous year. Soldiers and non-commissioned officers of the Native Army did excellent work in both the Baluchistan parties.

Topographical

Two half-parties of the Topographical Survey did forest work, as above stated, in Bombay. Party No. 14 broke ground in the forests near Hoshungabad of the Central Provinces; but in their first year, on account of climatic difficulties and the ruggedness of the country, the out-turn of work was small. Party No. 20 effected 343 square miles of forest survey in the forests of the Prome and Thayetmyo districts of lower Burma; the work was not disturbed by robbers or rebels as in the two previous years. In Gorakpur of the North-West Provinces, and in Orissa, surveys of certain forest reserves were effected by cadastral parties working in the neighbourhood. The whole area of forest surveys accomplished by all these parties during the year was 893 square miles.

Forest Surveys

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed.

Cadastral Survey

The telegraphic longitude operations were resumed, and seven arcs of longitude were measured between trigonometrical stations in Southern India. The season's observations tend strongly to confirm previous evidence that on the coast of India there is a perceptible deviation of the plumb line towards the ocean. Two transit instruments of Russian pattern, and of lighter construction than those hitherto in use in India, were tested, and it was found that they were in many ways suitable for Indian work.

Geodetic.

The recording of tidal curves by self-registering tide gauges, their reduction and the publication of tide tables have been continued at 18 stations, of which seven are permanent and 11 are temporary for five years. Two old stations were abolished, and two new ones were opened during the year. The

Tidal and levelling operations.

SURVEYS.

total number of ports treated since 1877, for which tide-tables are issued, is 28. The registrations of tides have been satisfactory, and there have been few failures. So far as predictions of high water, were concerned, 98 per cent. of the entries in the tables were correct within eight inches of actual heights at open coast stations, and 69 per cent. at river stations; while as to time of high water 56 and 71 per cent. respectively of the entries were correct within 15 minutes. The percentages of error were on the whole less than in the preceding year. The only self-registering gauge that was destroyed was at Elephant Point, where 4½ years of successful observations had been registered, notwithstanding many local difficulties; these data will suffice for the construction of tide tables.

Levelling operations were prosecuted from Madras to Vizagapatam, at False Point, to connect the marine survey bench marks with the main line of level, and from Chinsurah to Nuddea, along the right bank of the Hooghly. There were 597 miles of double levelling accomplished; while the heights of 591 permanent bench-marks and ten stations of the G. T. survey were finally determined. Three more pairs of test bench-marks, for detection of the secular change of the relative level of land and sea, were laid down near the tidal stations of Cocanada, Vizagapatam and False Point.

Explanations.

In Upper Burma, survey parties or surveyors accompanied the columns which marched through the northern Shan States, the southern Shan States, and the columns that operated in the Yaw country, the Chindwin Valley and the Mogoung district. Triangulation was carried over 23,274 square miles; and 20,780 square miles of hitherto unknown country were mapped on a scale of four miles to the inch, of which 7,605 belonged to the Shan States. North-east from Mandalay, the survey was carried as far as the Kanlon ferry on the Salween river, a place on the old caravan road between Burma and China, near to which the water-parting between the Irrawaddy and the Salween approaches within 20 miles of the latter river. A large scale map was made of the Ruby Mines tract, showing the sites of all ruby workings. Surveyors accompanied an exploring expedition from the Assam Valley across the Patkoi ranges, into the Hukong Valley of upper Burma, and surveyed two practicable passes through the Patkoi hills. A good map of the Black Mountain country was prepared on observations and surveys taken by officers deputed with the Hazara field force. The hill country of Western Nepal has been observed and mapped; and a compilation of recent observations by explorers in Tibet and Bhutan will shortly be published.

Marine Survey.

The survey vessel "Investigator" and two boat parties were employed on marine surveys throughout the open season, the staff being employed in the chart office during the monsoon months. The "Investigator" accomplished 4,630 miles, and the boat parties 1,542 miles of soundings. Among the results of the year's work were soundings round the approaches to Madras, whereby it was shown that there were 1,700 fathoms of water on a spot hitherto marked on the charts as "five fathoms doubtful." Surveys were made round the Laccadive and the Andaman Islands; at the Pak Straits; the western Coral Banks; on the Malabar coast near Cannanore and Tellicherry; and off Porbandar. Deep sea soundings were taken off Pulicat, and in the north of the Bay of Bengal; along a line from Porbandar to the Laccadives; and between Ceylon and the Andamans; the last mentioned was the deepest, being 2,125 fathoms. Interesting marine organisms, some of them quite new, were brought up by the trawler, especially from a depth of 250 fathoms off the Andamans. The observations for temperature have enabled the survey to construct a temperature curve which is fairly constant for all parts of those seas. The deepest observation showed 33°·7 Fahrenheit at 2,105 fathoms; and the temperature at 675 fathoms varied less than half a degree [41°·7 to 42°·1] for three observations off Colombo, Ceylon, east of the little Andaman Island; and near the head of the Bay of Bengal.

Geological Survey.

Among the investigations by the Geological Survey during the year 1888 may be mentioned the examination of the auriferous rocks known as the Dharwar rocks, bands of which occur in the gneiss formations, from the edge of the Deccan trap in the meridian of Kaladgi, across the upper basins

of the Kistna, Tangabhadra, Penner and Cauvery rivers. At many places in these bands of Dharwar rock, the geological officers discovered traces of extensive gold workings, the existence of which was hardly known to the present inhabitants. The investigators consider that in many places, especially in the Kolar and Maski bands, gold will be found in quantities that will repay working. The workers of past centuries used to crush the ore in saucer-like hollows in the solid, tough trappoid rocks, with rounded granite crushers weighing about a ton each. The supposed diamond sources in the Anantapur district of Madras were examined, but with only negative results. The coalfield of Singareni in the Nizam's dominions was examined; it was estimated that 17 million tons of coal were available in the field, though the coal was sometimes cut off by faults. Unselected samples of the coal burnt in locomotives gave an expenditure of 33½ lbs. per train mile. The geologists reported that the coal was "a good steam coal, * * * withstands weathering, and * * * will bear handling; that the * * * coal measures are within easy reach of the surface," and that the cost of raising the "coal into wagons at the pit's mouth, ought not eventually to exceed two "rupees a ton." Further examinations were made of the coal-bearing rocks of western Chota Nagpore and of Rajmahal; the latter coal source cannot be thoroughly tested until boreholes are put down. The seams of coal at Khost in Baluchistan were found to contain 1½ to 2 feet of good coal at times; coal from surface workings is now cheaply used in locomotives; but the best plan for permanent workings has not yet been settled. The petroleum sources at Khatun in Baluchistan, and in the Rawal Pindi district of the Panjab, were visited by officers of the survey; the Khatun oil is too thick to flow down a pipe for 40 miles to the railway where it has made excellent fuel. Rawal Pindi oil sources look poor on the surface, though the quality of the oil is good; but possibly deep borings and pumping might yield a fair supply. The Makum oil sources in Assam, and the upper Burma oil field near Yenangyaung on the Irrawaddy were both examined and reported upon by the survey, as also were the tin mines of Tenasserim and the ruby mines of Upper Burma. The Cashmere coal-field in the upper valley of the Chenab was examined; out-crops of fair coal in seams, three to four feet thick were found, and there may be better coal below; the analysis gave a very large proportion of ash, but until a considerable sample of this fuel has been burnt in locomotives, its value will remain uncertain.

In Bengal eight Government estates, of an area of 678,650 acres, four Ward's estates of 837,870 acres, and six private estates of 39,208 acres, were under regular survey and settlement. In the Ward's estate of Srinagar an area of 275,000 acres had been surveyed at a cost of 3½ annas per acre by a professional survey staff; in other cases the cost was somewhat higher; and on the Nulchera estate of 18,211 acres, the whole work of survey and settlement was completed at a cost of 8½ annas per acre. On the large Angul estate the cost of survey has been reduced from 6½ annas to 4½ annas per acre. On the Nulchera estate in the Noakhali district it was found that 72 per cent. of the whole area was cultivated; that out of 1,354 tenants, 719 were privileged ryots, 527 were non-occupancy ryots, and 108 were under-ryots. The Government demand was increased by Rx. 5,991, or 28 per cent.; and the whole cost of the settlement and survey amounted to less than two years' purchase of this increase. On another Government estate the rental will eventually reach Rx. 2,705 under the new settlement, as against Rx. 406 previously; the large increase being mainly due to drainage works carried out by the Government at a cost of Rx. 9,444. It has been decided that no Ward's estate shall be subjected to regular settlement and survey, unless the estate is solvent and can afford the outlay, and unless the condition of the estate is such as to make a survey and record of rights clearly necessary for efficient and economical management of the estate.

In all, 777 settlements were concluded during the year, for estates paying a land revenue of Rx. 15,684, and 1,090 estates were still under settlement. Difficulties regarding the revenue management of two large estates in Midnapore were compromised; a reduction of $\frac{1}{16}$ per rupee was made in the Government demand, which was reduced to Rx. 41,560.

CADASTRAL SURVEY
AND SETTLEMENTS.
Bengal.

SETTLEMENTS.
Assam.

In Assam a cadastral survey was made of 587 villages with a total area of 586 square miles, or a slightly larger area than in the preceding year; the average size of each field was 1.44 acres; the total cost of survey and settlement was 7 annas a square mile. No less than 55 out of 118 surveyors employed were local men, of whom 49 were trained village headsmen. The settlement resulted in a trifling increase of revenue. In Sylhet, 183 settlements were made of petty estates, aggregating 3,698 acres.

In Cachar, the number of applications for settlements of waste land were only 249, as compared with 969 in the previous year; the number of these cases awaiting disposal at the end of the year was 168 as compared with 587 at the end of March 1887. Only one of these applications was for tea-lands, the remainder were for ordinary cultivation; it is said that the bulk of the best land in the Cachar district has already been settled.

North-West
Provinces and
Oudh.

Cadastral surveys were prosecuted in the Gorakhpur district, where 224 square miles, and in the Basti district, where 777 square miles, were completed. The cadastral survey of Jhansi has been begun on an economical system. Settlement operations were prosecuted in six districts of the North-West Provinces; the settlement of the districts of Jaloun was completed at a total cost of Rx. 14,486, the increase of revenue secured at the settlement was Rx. 12,565, or 20 per cent. on the previous demand. In the Gorakhpur district much progress was made; revised assessments were sanctioned for one sub-division, yielding an increase of Rx. 12,500, or about 54 per cent. on the old revenue. In the Basti districts revised assessments were sanctioned for one sub-division, yielding an increase of Rx. 11,400, or 42 per cent. on the previous demand. In Gorakhpur, the cadastral survey is nearly, and in Basti, is almost completed; the quantity of judicial and miscellaneous settlement work in connection with the record of rights in these two districts was large. In the districts of Bolandshahr, Senaranpur, and Mozaffarnagar, re-settlement operations are based upon the village papers, which are being tested and revised, and no re-survey is undertaken. The revised village papers in districts where the village accountants (patwaris) have been specially trained, are found to be accurate enough for use after verification, as a basis for re-settlement. The new assessments are everywhere to be based on the actual rentals of estates, plus an assumed rental on the proprietors' home farms, computed according to rates below the rent paid by ordinary ryots.

No surveys or settlements were prosecuted in the province of Oudh, where the existing 30 years' settlement has still 10 years to run.

One party of the Survey Department was employed in the Punjab; it effected a traverse survey over 5,795 square miles to test the accuracy of the village maps; and it carried a test survey, mainly for topographical purposes, over 9,669 square miles. The village tri-junction pillars were found to be for the most part complete; but in parts of the Ferozpur district the face of the country was found to have changed owing to the introduction of canals since the old maps were made. Settlement operations were in progress in four districts, and were begun during the year in six more districts. In the new settlements a re-survey is avoided as far as possible; operations are based on the old village maps, which are revised by the village agency under adequate supervision and verification. The work is more expeditiously and more economically done than heretofore; and these results are in great measure due to the improved efficiency of the village agency. Revised assessments were sanctioned for the greater part of three districts, Amballa, Karnal, and Ferozpur; yielding an increase of Rx. 47,700. The re-settlement of the Amballa and Karnal districts has been completed.

Central Provinces.

Settlement operations are proceeding in 10 districts of the Central Provinces; in only one district, namely, Bilaspur, was the cadastral survey effected by professional agency, where 1,029 square miles were cadastrally surveyed at a cost of 115 rupees per square mile; in all other districts, the cadastral survey is being done by village officers (patwaris), specially trained for the duty; and their work is tested by a traverse survey effected by professional surveyors. In the Sambalpur district, where the fields are exceptionally small, the cadastral survey, plus the traverse survey, cost 98 rupees per square mile. In all about 3,700 square miles were cadastrally surveyed by local agency

agency; while a traverse survey, designed to check the local survey, was effected over 14,287 square miles, by six parties of the professional survey. In four more districts, the instruction of the patwari in survey duties has been completed, and they are ready for cadastral work. Revised assessments are being prepared in parts of four districts; but in Sambhalpur only were revised assessments sanctioned within the year. SETTLEMENTS.

In Lower Burma one cadastral party was at work; the survey of the Bassein district was completed, and that of the Thongwa district was continued. An area of 791 square miles was surveyed at an average cost of 5½ annas an acre; while more than one-fourth of the whole was under cultivation. The settlement of the Akyab district was finished; and the assessments of the year yielded an increase of Rx. 3,009, or 10 per cent. on the previous demand. The cultivated area, as ascertained by the survey, was 21 per cent. larger than the total shown by the village officers: but the new rates of revenue per acre were somewhat lower than the rates nominally prevailing before the settlement. The people were found to be in a tolerably prosperous condition; 54 per cent. of the ryots were not in debt at all, and 33 per cent. owed sums under Rs. 10 a-piece. Interest chargeable on agricultural loans was reported to range from 25 to 60 per cent. per annum. An area of 9,587 acres was found to be cultivated by under-tenants who paid to the ryots a gross rental of Rx. 3,355, or nearly double the revenue (Rx. 1,598) assessed thereon. Regular settlements have now been made in Burma for areas paying Rx. 415,506 or 56 per cent. of the land revenue of the province; the cost of survey and settlement has been Rx. 545,000, and the additional revenue due to revised assessments alone has been Rx. 23,393. But during the nine years over which settlement operations have been spread the land revenue demand has increased by 25 per cent., namely, from Rx. 602,800 to Rx. 756,900. Lower Burma.

The Madras survey staff completed during the year 2,041 square miles of cadastral survey, 395 square miles of topographical survey, and 599 square miles of special survey. In all districts except South Canara the survey has been either completed or begun; and 11,257 square miles, or about four years' work, of cadastral survey remain to be done. The cost of the work varied greatly in different districts, ranging from Rs. 130 per square mile in part of Bellary, to Rx. 550 per square mile in part of Tanjore. But the average cost of the work was considerably less than in the preceding year. The areas ascertained by the survey were in most cases considerably larger than the areas previously accepted from native measurements. Settlement operations were in progress in parts of six districts, namely, Bellary, Anantapur, Vizagapatam, South Arcot, Madura, and the Wynaad; and the settlement of Anantapur was finished. The total cost of the survey and settlement in Madras up to date, has been Rx. 2,642,000; there has been an increase of Rx. 275,000 in the revenue, out of which Rx. 155,000 accrued in the districts of Godavari and Kistna. It is difficult to say how much of this increase was due to the settlement, and how much to other general causes. Madras.

In Bombay and Sind an area of 3,099 square miles was cadastrally surveyed; three parties were employed in Bombay proper. In the Bombay districts much of the cadastral work consisted of re-measurements and re-classifications, wherein the data of the previous survey are checked and corrected. But a good deal of complete re-measurement, as well as some original measurements, were done. The cost of the work was Rx. 50,300 against Rx. 57,900 in the preceding year. In all the tracts settled there had been great advances, since the last settlement 30 years previously, in the area under the plough, in the prices of produce, in the population, in the number of carts and cattle, and in the means of communication. The re-settlements resulted in an increase of Rx. 7,296, or 28 per cent. on the previous revenue. Inquiries regarding alienated lands and the issue of deeds of grant (sanads) had previously been completed in nine districts; in the remaining districts 5,227 alienation inquiries were completed and sanads issued; it is estimated that about 1,851 sanads have still to be issued, mostly in the southern division. Bombay.

VIII.

LAND REVENUE.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND
CAPITATION TAX, AND WARDS' ESTATES.

The subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1887-88; also the net land revenue for the past two years.

DETAILS of LAND REVENUE and EXPENDITURE.

	India, General (including England).	Bengal.	Assam.	North West Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
REVENUE.	Rr.	Rr.	Rr.	Rr.	Rr.	Rr.	Rr.	Rr.	Rr.	Rr.
Ordinary Land Revenue -	97,364	3,717,844	394,294	5,742,414	2,000,912	621,219	768,568	4,820,529	3,425,960	21,659,100
Sale of Proprietary Right of Government in Land.	28	3,612	—	874	177	—	—	255	—	4,946
Rent of Resumed Police Service Lands and Ser- vice Commutations.	—	97,643	—	—	18,177	—	—	—	876,816	902,532
Sale of Waste Lands and Redemption of Land Re- venue.	252	2,217	2,516	113	323	—	46	1,528	—	7,000
Capitation Tax or House Tax levied in the Prov.	1,413	2,444	—	—	—	—	333,506	—	—	337,363
Receipts for the Improve- ment of Government Estates.	—	38,390	—	—	—	—	—	—	—	38,390
Fisheries and other Re- ceipts classed as Mis- cellaneous.	26,798	23,059	23,129	43,678	68,036	3,053	116,425	115,172	31,446	463,708
Upper Burma Receipts	—	—	—	—	—	—	378,806	—	—	378,806
Total Gross Revenue Rr.	125,755	3,800,109	429,939	5,787,079	2,155,630	624,272	1,597,351	4,937,494	4,334,223	23,791,847
Credited to Public Works	—	—	—	87,238	45,654	—	—	409,547	60,116	602,555
Total in Revenue } Rr.	125,755	3,800,109	429,939	5,874,317	2,201,284	624,272	1,597,351	4,937,987	4,274,112	23,894,402
Corresponding Total } Rr.	112,331	3,577,436	430,642	5,762,097	2,104,210	625,674	1,481,163	4,458,902	4,202,269	23,055,724
EXPENDITURE.										
Refunds and Drawbacks -	404	4,411	455	4,525	4,220	337	1,637	10,233	13,244	42,463
General Charges of Ad- ministration.	23,237	283,714	51,714	665,807	177,514	109,689	74,975	317,644	239,280	2,028,624
Upper Burma Charges -	—	—	—	—	—	—	87,095	—	—	87,095
Land Settlement Charges.	20	4,938	3,952	45,603	41,953	25,652	5,141	29,353	1,395	158,514
Revenue Survey -	11,819	9,499	11,133	34,659	5,141	13,054	23,015	73,623	87,903	274,937
Land Records and Agri- culture.	—	8,918	1,315	7,620	3,420	3,908	9,633	5,037	7,460	47,771
Charges directly connected with the Collection of Land Revenue.	13,505	63,528	24,330	31,490	117,703	52	76,954	324,100	273,429	839,552
Charges in England -	133	—	—	—	—	—	—	—	—	133
Exchange on Charges in England.	56	—	—	—	—	—	—	—	—	56
TOTAL Charges - Rr.	53,812	340,597	93,504	735,184	339,731	152,255	276,713	780,322	658,567	3,486,685
TOTAL Expenditure - Rr.	54,216	345,008	93,959	739,709	343,951	152,592	278,350	790,555	671,811	3,529,151
NET REVENUE, 1887-8 Rr.	71,539	3,455,101	335,980	4,910,432	1,765,065	471,680	1,319,001	3,728,382	3,602,301	19,600,161
" " 1886-7 Rr.	53,483	3,521,718	334,841	4,965,956	1,765,524	488,304	1,235,823	3,674,534	3,516,188	19,550,446

LAND REVENUE.
Ajmere and
Coorg.

In Ajmere the rainfall of 1887 though full, was unseasonable; water in the tanks ran short, and the harvest were not good. There was a decrease of Rx. 803 in the land revenue demand, following on a decrease of Rx. 1,290 in the previous year. Of the whole demand 99.7 per cent. was collected, the balance being only Rx. 25 at the end of the year. The system of variable assessment introduced into 61 villages is said to be unpopular with the people. In Coorg there was an increase of Rx. 12% in the land revenue demand proper over the preceding year; and there was an increase of Rx. 5,544 in the receipts on account of the sale of waste land. The selling price of such lands, inclusive of the value of standing timber, has risen from Rs. 8 in the year 1884-85 to Rs. 97 per acre in the past year. A cadastral survey of the cultivated land in Coorg was begun during the year; the work is expected to occupy two to three years and to cost Rx. 8,640; the area accomplished during the year was 20,549 acres, showing an average of $1\frac{1}{2}$ acres for each holding of till land and one acre for each holding of other land. The ryots at first were opposed to the survey, but when they saw how it was worked they not only ceased obstruction but cordially aided in carrying and erecting permanent boundary marks. The area under coffee is now returned at 84,658 acres or 12,324 acres above the area shown in last year's report; but much of the apparent increase is due to a more careful enumeration and survey of outlying patches of coffee cultivation.

The rainfall of Berar was unusually heavy, especially in July and October, doing much harm to the autumn crops but benefiting the spring crops. The area under cotton decreased by 148,151 acres or 7 per cent.; and the total area under all crops was 6,436,622 acres or 18,561 acres less than in the preceding year. The total land revenue collections were Rx. 672,697 or Rx. 6,079 above those of 1886-87. The average price of millet (jowari), the staple food of the country, was 40 lbs. per rupee as against 58 and 62 lbs. in the two preceding years. Rx. 15,513 out of the year's demand remained uncollected at the close of the year. The number of writs of demand for arrears increased from 5,514 in 1886-87 to 10,294 in the year 1887-88; three defaulters were imprisoned; in 46 cases personal property of defaulters was sold, and in 256 cases their lands were sold for arrears of revenue. The number of sales or transfers of land was somewhat higher than in the preceding year; but the areas concerned were smaller. The total area affected by sales and transfers has been 108,119 acres, 114,111 acres, 149,176 acres, and 128,985 acres during the past four years. The average comes to about $1\frac{1}{2}$ per cent. on the total area under occupation.

The land revenue current demand in Bengal for 1887-88 shows a decrease of Rx. 6,191 due to reductions of assessment in certain Government estates of the Midnapore district. The uncollected balance at the end of the year was 5.1 per cent. of the year's demand, or about the same as in the previous year; this was due to the short harvests in Orissa, Midnapore, and parts of Behar. The amount of revenue remitted was Rx. 2,382 as compared with Rx. 8,339 in the previous year. Re-valuations of the rental were in progress of 14 districts for the purposes of the Road Cess Act, and they were completed in four districts.

The number of estates that became liable for sale and were sold for arrears of revenue was as follows:—

	1886-87.	1887-88.
Total number of estates on the rent-roll	159,162	161,425
Estates becoming liable to sale	14,546	14,745
Number actually sold	1,859	1,863

A sum of Rx. 29,241 was spent on improving Government estates; and the prosperity of the ryots on these estates was said to be, with certain exceptions, improving. Settlements have been made on 658 Government estates, and the revenue demand has been reduced by three-sixteenths in the rupee on two large estates in Midnapore which now pay Rx. 41,560 a year.

LAND REVENUE.

Under the Land Registration Act nearly 1,100,000 applications for registration have now been heard; and completion reports of the initial registrations are being received. Alterations in ownership by succession are inadequately registered in most districts. The relations between landlord and tenant are said to have been on the whole satisfactory. The Bengal Tenancy Act of 1885 had been in force for $2\frac{1}{2}$ years; and it had not given rise to increased litigation or to agrarian trouble. Application was made for survey and record of rights by 20 zemindars, besides Ward's estates and Government estates.

The rainfall of 1887-88 was below the average throughout Assam, but the harvests were on the whole good, except in the Surma Valley where the rainfall was unseasonable as well as short. The public health was better, and the death-rate lower than usual; and there was a decrease in deaths from cholera. The land revenue demand increased by 1.28 per cent. as compared with an increase of 2.15 per cent. in the previous year; the advance was due mainly to extensions of cultivation. On the whole demand, Rx. 390,964, the collections were 96.65 per cent.; the remissions were 0.6 per cent., and the balances at the end of the year were 3.3 per cent. The balances occurred chiefly in the Surma Valley, and had been nearly all realised within six months of the close of the year. The number of estates sold for arrears of revenue increased to 644; most of them were very petty properties; the total amount of arrears against them all was Rx. 779, and they fetched on the average five times the yearly revenue. Careful inquiry was made regarding these sales, and it was found that severity had not been exercised towards the defaulters. In the Assam Valley the proportion of estates on yearly instead of decennial settlements is increasing; 1,004,400 acres are now settled for 10 years against 503,278 estates settled for one year. The miscellaneous land revenue decreased by Rx. 2,118, mainly on account of a reduction of Rx. 2,492 in the elephant revenue by reason of half the elephant grounds having been closed in order to give the herds rest for a season. The area cultivated by time-expired labourers from tea gardens in the Assam Valley rose during the year from 12,868 to 15,357 acres. The colony of Christian Sonthals in the Goalpara district made little progress; the colonists number 500 souls, cultivate 1886 acres, and have repaid 82 per cent. of the advances made by Government to help their settlement.

North-West
Provinces and
Oudh.

The ordinary land revenue demand of the North-West Provinces increased by Rx. 6,640, and the uncollected arrears at the end of the year were 0.2 per cent. on the whole demand as against 0.5 per cent. in the previous year. The number of writs of demand issued against defaulters fell from 50,545 to 46,734. The number of arrests for default increased somewhat, but the number actually sent to jail, 381 persons, was 10 per cent. less than in 1886-87. The longest period for which any defaulter was detained in custody was 15 days. The number of applications and suits under the Rent Law, 205,961 cases in all, is almost identical with the previous year's total; 27 per cent. of these cases, and in some classes of suits only 12 per cent. are contested. The area affected by ejectment cases against occupancy ryots was 101,852 as against 103,062 acres in 1886-87; and in only 31 per cent. of these cases did ejectment actually take place. The notices to quit issued against tenants-at-will affected 218,453 acres against 218,705 acres in the previous year. These figures in some degree warrant the inference that landlords are not at present making oppressive use of the ejectment provisions of the Law. Out of all the Rent Law suits about $5\frac{1}{2}$ per cent. were decided, after contest, in favour of the ryots. The number of petitions for partition of estates fell from 2,741 in the previous year to 1,987 in 1887-88; but it was said that the frequency of partitions was a fertile source of harassment to the ryots. The number of loans for land improvement advanced under the Acts, decreased from 3,725 to 2,140; and it was reported that landlords and tenants were alike backward in seeking this kind of help.

In Oudh the rainfall of the year ending in September 1887 was above the average; the autumn harvests were good; but the spring crops were much injured by the unusually heavy frosts in February and the out-turn was poor.

poor. There was no appreciable increase in the land revenue demand, of which 99½ per cent. was collected within the year. Collections were made without difficulty; for 10 years there has been no sale of land in Oudh for arrears of revenue; in the past six years a defaulting estate has on only two occasions been farmed to an outsider; and for two years no estate has been temporarily sequestered for arrears.

The reduction in attachments for default, in arrests of defaulters, and in notices of demand, has continued. The new Tenancy Act came into force in January 1887; the number of notices of ejectment of tenants fell from 92,451 in 1886 to 49 in 1887, and went up to 2,040 in 1888; only 48 notices of enhancement of rent were issued in 1887, and in 1888 the number rose to 3,661, of which 3,408 belonged to the single district of Unao.

In the Punjab the fixed land revenue demand showed a small decrease of Rx. 1,000 or about .05 per cent., in consequence of petty changes; while no enhanced demands became due under settlement operations. The total collections showed a decrease of Rx. 27,153 as compared with the previous year, in consequence of the partial failure of the winter rains, which necessitated suspensions of demand in five districts and some remissions in two districts. Most of the revenue thus suspended will be recovered if ensuing seasons prove prosperous. There was a decrease of Rx. 37,000 on the miscellaneous land revenue, partly in consequence of a revision of the grazing tax in the Montgomery district. Under the Tenancy Law 23,269 cases were instituted as against 22,281 in the preceding year; the number of suits for enhancement of rent was 1,310 as compared with 2,017 in the year 1886-87. These suits sometimes ensue upon the completion of settlement operations and the sanction of a new record of rights. It is claimed that the new Tenancy Act "has placed on a more intelligible and workable basis the law governing suits for enhancement of rent." The number of suits for ejectment was 3,796; but the great decrease in the number of suits of this class of cases was practically due to the change of the law which suspended for a time the issue of notices of ejectment. Considerable areas of waste land in the Montgomery and Mooltan districts, which never paid any revenue before, have now been brought under cultivation by colonists who settled on the banks of two small canals that have been recently opened. Already applications have been received for hundreds of thousands of acres of waste land commanded by the Chenab Canal; but until a permanent supply of water shall have been assured by the construction of a weir, people cannot safely be settled on these lands. The Jhelum Canal, which has recently been sanctioned, will eventually make cultivation possible over large areas of waste. Careful inquiries have been made concerning the indebtedness of the Punjab agricultural classes. It is found that the area of land mortgaged and sold is increasing steadily. In the year 1886-87 the mortgages and sales comprised 1,150,320 acres as compared with 656,368 acres in the preceding year; but the selling price is rising steadily, and has advanced from Rx. 27 to Rx. 37 per acre during the past four years. About one-fourth of the land transferred was from one agriculturist to another; and about three-quarters passed into the hands of money lenders and others.

The year was not on the whole favourable in the Central Provinces; and the land revenue shows a decrease of Rx. 1,401. The land revenue of these provinces has been nearly stationary for about 20 years; but the revisions of settlement now in progress at the conclusion of terms of 30 and 20 years will shortly yield a considerable increase. The revenue was collected with little difficulty. Litigation under the Tenancy Act continues to increase, but is still inconsiderable; suits for arrears of rent have risen in three years from 5,749 to 8,416; while other suits between landlord and tenant have increased from 1,534 to 2,044.

In Lower Burma the season was not favourable, and the rice crop was below the average. The area under cultivation increased by 110,000 acres; and the land revenue collection increased by Rx. 13,600. The land revenue was easily collected; the number of arrests, of coercive processes and of sales of property, for default in payment of revenue was much smaller than in the previous year. Remissions, due to floods and drought, were

LAND REVENUE.

Rx. 2,466 more than in 1886-87. The uncollected balances of land revenue at the end of the year were Rx. 43,287 as compared with Rx. 63,426 in the previous year; of the balance, all but Rx. 3,047 was collected within three months after the end of the year. The capitation tax demand showed an increase of Rx. 16,846; the uncollected balances and the remissions were smaller than in the previous year. The fishery revenue, after falling off steadily for five years, showed an increase of Rx. 6,212 or over 5 per cent., and there was a considerable reduction in the amount of fishery revenue due at the end of the year. For the collection of the land revenue 6,554 writs of demand issued as against 14,237 in 1886-87; moveable property was sold in 84 cases as compared with 133; and no defaulter was sent to jail. For arrears of capitation tax 3,995 fewer writs of demand issued, and in 20 fewer cases was property sold than in the previous year, while the number of defaulters sent to jail fell from 186 to 42.

Madras.

The latest Madras report upon land revenue affairs pertains to the year [July to June] 1886-87. The rainfall of the south-west or early monsoon was heavy; canals were breached and serious floods occurred in the Kistna, Godavari and Kurnool districts; the rainfall of the north-east monsoon was scanty and caused some failure of the crops in the districts of Madura and Tinnevely. On the whole, the out-turn was reported to have been below a fair average crop. Nevertheless the price of food-grains fell all over the country, and the millets, or dry crop grains, which constitute the food of the masses, were cheaper than they have been since the year 1875 before the great famine. The area under cultivation was 500,000 acres larger than in the previous year; it is the largest ever recorded, and for the first time exceeds the total of the prosperous years before the famine of 1877. The land revenue demand was Rx. 1,165,000 from ryotwaree lands, held by peasant proprietors direct from the State; Rx. 507,500 from large permanently settled estates with a gross rental of Rx. 1,590,000; and Rx. 67,500 from quit-rent estates. The total demand was Rx. 100,000 above the demand of the previous year, and Rx. 240,000 above the average of five years before the famine. For the districts from which returns are available the ryotwaree revenue demand is divisible into, (1.) Rx. 1,720,000 on 16½ millions of acres of dry crop, or unirrigated land at an average rate of something above one rupee an acre; and (2.) Rx. 1,765,000 on four million acres of wet crop, or irrigated land at an average rate of 4¾ rupees per acre. The amount of revenue remitted in the year was Rx. 73,966, or about the same as in the preceding year; the remissions occurred principally in the Godavari and Kistna districts on account of floods, and in Madura and Tinnevely on account of failure in the November rains. Of the current demand 95·8 per cent. was collected within the year; and of the arrear demand from past years 88 per cent. was either collected or remitted. As compared with the previous year there was a decrease of 45 per cent. in the area of land sold, and of 19 per cent. in the personal property sold for default of revenue. A review of the coercive processes employed against revenue defaulters in Madras during the past six years showed that the land revenue payers have recovered from the effects of the recent famine and that year by year the revenue is paid with less and less pressure.

Bombay.

In the Bombay presidency the rainfall was full and seasonable, save in the districts of Guzerat; but the inundations of the Indus, on which Sind agriculture mainly depends, were late and insufficient. The crops were good except in parts of Sind and of Guzerat. The price of grain, except in Guzerat, was cheaper than in the year 1886-87. The area of land newly taken up for cultivation in all districts, exclusive of the province of Sind, is returned at 262,577 acres as compared with 186,581 acres in the previous year. The revenue was collected with ease and without pressure on the people; and recourse was had to coercive process of distraint in 3,579 cases as against 4,096 cases in 1886-87; but the number of distraints pertaining to the province of Sind was larger than in 1886-87.

GOVERNMENT AND WARDS' ESTATES.

GOVERNMENT AND
WARDS' ESTATES.

There were in Bengal, 3,058 Government estates with a rental of Rs. 223,237, besides 28 ryotwaree tracts with a current revenue of Rs. 84,375. Of the entire demand, current and arrear, 76½ per cent. of the rent on estates, and 91½ per cent. of the revenue on ryotwaree tracts were collected during the year, showing an improvement over the previous years' collections; 50 Government estates with an aggregate area of 356 acres were sold for Rs. 2,498, subject to the payment of a yearly revenue of Rs. 129. The cost of managing these estates was the same as in the previous year, namely, 7·3 per cent. on the demand. Rs. 9,010 were spent by Government on works for the improvement of the estates, besides Rs. 5,225 on roads, and Rs. 1,677 on primary schools. The condition of the Government ryots was reported to be good, save in limited tracts which had been visited by floods.

In Bengal, 84 wards' estates and 73 attached estates were under the management of the Court of Wards, with a total rental of Rs. 1,024,646. The collections of the year amounted to Rs. 998,171, or 3 per cent. above the collections of the preceding year. The arrear demand increased by 34½ lakhs of rupees, most of which was due to the Bhowanipore estate, which came under the Court of Wards during the year; this estate had on its books an arrear demand of 27 lakhs, or 18 times the year's revenue, most of which was quite irrecoverable, and will be struck off. The cost of management was 8·6 per cent. on the rental as against 10·1 per cent. during the preceding five years. Debts to the amount of Rs. 142,883 were paid off during the year; and the outstanding debts due from all wards' estates were Rs. 505,000 at the close of the year. The cash balances due from all estates were Rs. 255,000, and Rs. 378,200 were invested in Government securities; these sums were outside the large treasure belonging to the Burdwan estate. Arrangements have been made for effecting a survey and record of rights over 10 large estates, aggregating over a million acres in area; all these estates are solvent and are found to require a cadastral survey in order to admit of proper administration. Measures of this kind are not to be undertaken on estates that cannot afford them, or that can be properly administered without a cadastral survey. The outlay on material improvements was somewhat less than in the preceding year. The balance sheet of all estates under the Court of Wards for the year 1887-88 resulted thus:

Cr.		Dr.	
	Rx.		Rx.
Opening cash balance - -	330,774	Management - - -	73,782
Debts realised - - -	20,669	Buildings and works - -	18,647
Rental cesses, &c. - - -	998,171	Survey and settlement - -	11,627
Miscellaneous - - -	190,248	Law expenses - - -	29,646
		Maintenance of proprietors and their households.	111,349
		Education of minors - - -	5,551
		Schools and hospitals - -	9,821
		Improvements - - -	4,326
		General direction and audit -	10,849
		Miscellaneous expenses - -	220,383
		Debts paid - - -	142,883
		Investments made - - -	48,660
		Land revenue and cesses - -	553,087
		Payments to superior landlords -	48,256
		Closing cash balance - -	255,385
Total - - - Rx.	1,539,862	Total - - - Rx.	1,539,862

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GOVERNMENT AND
WARDS' ESTATES. The number of estates under the Court of Wards in the North-Western
North-Western Provinces had fallen at the close of 1886-87 to 204, with an area of 836,000
Provinces and acres, a rental of Rx. 674,000, and a population of 1,113,000. Eleven estates
Oudh. were restored to their proprietors during the year, all free of debt, and 10
of them with considerable cash or invested balances. Against the estates
under the Court there had been debts amounting to Rx. 416,000, which
were reduced by March 1887 to Rx. 154,000. The cost of management
averaged 7 per cent. on the income; and Rx. 7,600 were spent on works of
improvement, chiefly wells. Of the gross current and arrear rental 88 per
cent. was collected; Rx. 24,000 were expended in paying off debt; and
Rx. 271,000 were invested from the surplus of solvent estates at the end
of the year. Tenants are on the whole well treated by the Court; the num-
ber of notices of ejectment was 280; and there were only 19 suits for
enhancement of rent, pertaining to 106 acres in all.

There were 52 estates under the Court of Wards in Oudh, or eight less
than in the previous year. The rental of these estates was $17\frac{3}{4}$ lakhs, of
which 96 per cent. was collected during the year; and there was an income
of Rx. 31,649 from other sources. The chief items of expenditure were
Rx. 82,242 in payment of the revenue; Rx. 10,483 on management,
Rx. 6,957 on improvements, such as wells and purchase of cattle for
tenants, and Rx. 61,283 on payment of debt. Six estates were released
from management by the Court of Wards at the close of the year; during
the term of management the debts of these estates had been paid off,
while something considerable had been spent on improvements, and rents
had risen.

Punjab.

In the Punjab 45 estates were managed by the Court of Wards, with a
total income of Rx. 64,762, out of which Rx. 12,306 were devoted to paying
off old debts. Three estates were released on the majority of the owners.
The solvent wards' estates showed at the end of the year a cash balance of
Rx. 38,378, and investments in Government stock, yielding Rs. 5,617 a year,
besides net assets of an estimated value of Rx. 323,345.

Central Provinces.

In the Central Provinces the Court of Wards relinquished the manage-
ment of four estates, with a rental of Rx. 1,328, and received charge of 17
estates, with a rental of Rx. 8,388. At the end of the year 137 estates, with
an area over 7,000 square miles, and a rental of Rx. 150,000, were under
charge of the Court. Most of these estates are managed by Government
officers, on account of the owners' indebtedness; in this way a large number
of estates and families have been saved from ruin, but the additional duty
thrown on the revenue officials is considerable. Debts amounting to
Rx. 23,745 were paid off during the year, and the debts of all estates at the
end of the year amounted to Rx. 113,967. The cost of management came to
7.3 per cent. on the gross income, no charge or rate being yet leviable on
account of the time spent by revenue officers on this branch of their duty.
On some estates the collection of revenue was slack, and arrears were con-
siderable; steps are being taken to introduce more general regularity in this
respect.

Madras.

The Court of Wards in Madras during the year handed three estates
back to their proprietors and took charge of seven estates. The three
estates relinquished had balances at credit on relinquishment; on one of
these Rx. 6,900 had been spent for works of improvement by the Court of
Wards; and in all three the wards had been carefully educated for their
new duties. In some of the larger estates, notably in Ramnad, there was a
decrease in the cultivated area as compared with the previous year, by
reason of the unfavourable character of the season. The total collections
of the year were Rx. 255,328; and they amounted to $84\frac{1}{2}$ per cent. on
the current demand, or one per cent. better than in the previous year.
The balance at the credit of all estates, invested or uninvested, at the end of
the year was $44\frac{1}{4}$ lakhs, or $2\frac{1}{4}$ lakhs more than at the beginning of the year.
The debts due by the estates at the end of the year were Rx. 95,367, and the
debts due to the estates were Rx. 77,489. The expenditure on works of im-
provement was Rx. 15,183, of which more than two-thirds was spent on
irrigation works. The cadastral survey of all assessed lands in the wealthy
estate of Parlakimedi in Ganjam was completed. In three estates impor-
ta.

tant works or measures of forest conservancy were carried out. The progress of the 55 wards at schools, at college, and under tutors was satisfactory. To one of the older wards charge of a part of his estate was entrusted in order to teach him his duties as a proprietor.

In Bombay the estates under the Court of Wards of under Government management were of several kinds, namely :—

	No.
(1.) Estates under the Court of Wards -	91
(2.) Encumbered estates in Guzerat, &c., managed under Acts of 1862, 1881, and 1884, and under the Civil Procedure Code -	694
(3.) Encumbered estates in Sind -	119

The estates of the second category are all in Guzerat, and are under the care of a special revenue officer, a Native of India. In Ahmedabad owing to the unfavourable season only 9½ per cent. of the outstanding debts, in Kaira 11 per cent., and in Broach 32 per cent. were paid off. No new estates were taken under management. Among the estates which were released after payment of all debts the largest was Amod in Broach, which was under management for 17 years, during which time a debt of Rx. 24,768 was cleared off. The cost of management came to 9¾ per cent. on the income as compared with 10½ per cent. in the preceding year. Out of total collections of Rx. 70,749 a sum of Rx. 15,028 was spent on paying debts, Rx. 22,699 were in hand at the end of the year, and Rx. 5,956 were in arrears as uncollected. The result of the management of encumbered estates in Guzerat has not been in all respects satisfactory; talukdars whose estates have been released clear of debt have in some cases incurred heavy liabilities again in a very few years; cases have come to light in which estates were by collusion improperly brought under the Act; while difficulties have been placed in the way of educating minor proprietors. The law is being modified so as to guard against these untoward circumstances. On encumbered estates in Sind important reductions have been made in the cost of management; 14 estates were freed from debt and restored to their owners, 12 more were leased for a time on such terms as provide for the whole debt being liquidated by the end of the leases; on all the other estates material reductions of debt were effected; and the cost of management was from 4½ to 5 per cent. on the gross income.

IX
FORESTS.

FORESTS.

THE subjoined tables give the forest revenue, expenditure, and surplus, for each province during the year 1887-88, and the totals for all India, for eight years since the year 1874 :—

	India.	Central Provinces.	Burma.	Assam.	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay.	TOTAL.
REVENUE :	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Gross Receipts - - -	26,511	109,336	251,573	26,730	65,779	124,745	78,694	137,492	304,258	1,124,125
EXPENDITURE :										
General Direction - - -	5,326									5,326
Upper Burma Charges - -			12,110							12,110
Conservancy Works - - -	12,231	30,397	76,166	7,795	17,308	53,304	37,332	56,176	107,769	398,528
Establishments - - -	11,649	24,843	27,089	14,089	21,664	29,562	30,251	56,477	85,799	301,433
Charges in England - - -										1,758
Exchange on the same - -										739
TOTAL Expenditure - - -	29,156	55,240	115,375	21,884	38,972	82,866	67,583	112,653	193,568	719,794
Net Revenue or Forest Surplus - - -	(-2,645)	54,096	136,203	4,845	26,807	41,879	11,111	24,839	109,690	404,331

FOREST REVENUE and EXPENDITURE.

	Receipts.	Expenditure.	Net Revenue.
	Rx.	Rx.	Rx.
1874-75 - - - -	583,281	423,267	160,014
1877-78 - - - -	664,102	421,667	242,435
1880-81 - - - -	709,320	465,976	243,344
1883-84 - - - -	1,052,190	649,375	402,815
1884-85 - - - -	986,984	679,397	307,587
1885-86 - - - -	1,086,092	680,988	405,104
1886-87 - - - -	1,103,970	719,765	384,205
1887-88 - - - -	1,124,125	719,794	404,331

Ajmere.

The Reserved Forests of Ajmere are returned at 139 square miles, as in last year's Report. The area of forest burnt was 12½ acres, as compared with 314 acres in the previous year. No addition was made to the area of plantations; Rx, 138 were spent in maintaining and re-stocking existing plantations; and the progress of natural reproduction in the reserves was good. The forest revenue was Rx. 1,429, against an outlay of Rx. 1,889, leaving a deficit of Rx. 460, or Rx. 48 better than in the previous year. The revenue accrued chiefly from firewood, charcoal, and grazing dues.

Coorg.

In Coorg the Reserved Forests comprise a total area of 141 square miles, no addition having been made during the year. The area of plantations of teak and sandal-wood is now 1,275 acres, of which more than one-quarter is sandal-wood, and the rest is mainly teak; the new plantations of the year were

were 137 acres, at a cost of Rs. 32 per acre. Surveys and working plans were in progress over 96 square miles of forest. The efforts made to exclude fire were successful over 96 per cent. of the area protected. The forest revenue was Rx. 12,702, against an expenditure of Rx. 7,262, leaving a surplus of Rx. 5,440, or Rx. 2,919 more than in the preceding year. The increased revenue and surplus are said to have been due to the general prosperity of the Coorg district.

The area of Reserved Forests in Berar is 1,107 square miles, or the same as in the previous year; the demarcation has been completed, and the boundary marks are in good order. Working plans and surveys of two forest blocks have been completed, and the condition of the young teak was found to be better than had been estimated. Fires were excluded from 92 per cent. of the 107 square miles wherein fire protection was attempted, as compared with 96 per cent. successfully protected in the previous year. The natural reproduction of teak is reported to be disappointing, and consists mainly of seedlings and shoots which die down during the hot season. No addition was made to the area of plantations, which now cover 9,952 acres, on the maintenance of which Rx. 127 were spent. The forest revenue was Rx. 40,624, against an outlay of Rx. 18,316, giving a surplus of Rx. 22,308, or Rx. 6,815 above the surplus of the preceding year. Of the revenue, Rx. 10,007 accrued from timber, and Rx. 20,866 from grazing fees.

The area of Reserved Forests in Bengal remained unchanged at 4,986 square miles, besides 2,189 square miles of protected State forests. The work of demarcating the reserves has now been completed. No new working plans or forest surveys were made during the year; a review of the working of the Darjeeling and Jalapahar forest circles during the past six years shows that the wood extracted during that period had been 8 per cent. in excess of the working plans scheme in the Darjeeling circle, and 28 per cent. below that scheme in the Jalapahar circle. Fire was excluded from 89 per cent., as compared with 80 per cent. in the preceding year, of the 1,773 square miles over which protection against fire was attempted. The area of plantations was increased by 294 acres, at a cost of Rs. 24 per acre; and the total area of Bengal plantations is now 3,704 acres, of which one-half consists of teak, toon, and sâl trees, and one-quarter of oak. There was an increase of 12 per cent. in the yield of timber and of $3\frac{1}{2}$ per cent. in the yield of fuel from the forests; the yield of bamboos declined 5 per cent. in consequence of disturbances on the Chittagong border; the yield of minor forest produce increased 18 per cent. The forest receipts were Rx. 65,779, against an expenditure of Rx. 39,037, leaving a surplus of Rx. 26,742, or Rx. 3,657 better than in the preceding year. Out of the whole revenue, Rx. 39,730 were yielded by the tidal forests of the Sunderbuns, whence Calcutta and the districts of central Bengal draw their supplies of timber and fuel.

The Reserved Forests in Assam were increased by 603 square miles, bringing up the total area to 3,310 square miles. Surveys were conducted in several reserves, and working plans for one forest were completed. From 99 per cent. out of the 278 miles, wherein fire protection was attempted, fires were successfully excluded. No addition was made to the plantation tree, which consists of 1,495 acres, principally rubber (caoutchouc) trees; other trees at present reproduce themselves with sufficient rapidity; and the natural growth of young sâl, the most important of Assam forest trees, is exuberant. The rubber yield of Assam forests has, during the last ten years, ranged from 5,821 cwt. to 1,626 cwt. per annum; the yield of the year 1887-88 was 4,673 cwt., or nearly treble last year's produce. The total forest revenue was Rx. 26,713, against an outlay of Rx. 22,689, leaving a surplus of Rx. 4,042; the previous two years had been years of deficit, and the improvement was mainly due to the revival of the trade in sâl timber to Bengal. Most of the timber was worked out by licensed purchasers; very little was brought to market by the Forest Department.

The area of Reserved Forests in the North West Provinces and Oudh remained practically unchanged during the year; it is now 3,608 square miles. Working plans and surveys are either complete or in a forward state for half of these reserves; working plans for seven forests were sanctioned during the year. Fire was excluded from 95 per cent. of the 3,019 square miles of forest over which fire protection was attempted; the cost

FORESTS.

cost of fire protection per square mile was materially reduced. The efforts to facilitate and improve natural reproduction are reported to have been successful; the stocking of blank areas in some of the Himalayan reserves with deodar has been prosecuted; and thinnings are said to have improved the young growth. The expenditure on plantations and other cultural operations was small. The revenue of the year was, Rx. 124,738, against an expenditure of Rx. 82,957, leaving a surplus of Rx. 41,781, or Rx. 23,593 less than in the previous year. The decrease in the forest receipts was due to the cessation of the demand for timber sleepers, and for fuel and petty timbers on railway works; much attention was given during the year to the privileges and requirements of villagers living near the forests. At the Dehra Forest School were 75 students, of whom nine were sent by Native States, and nine were private students; they were employed on conservancy, timber, and silviculture operations in different parts of the Forest School Circle, besides receiving instruction in botany, forestry, forest law, surveying, and mathematics; 17 students obtained certificates as "Rangers," and 14 obtained certificates as "Foresters."

Punjab.

The area of Reserved Forests of the Punjab was 1,189 square miles, being the same as last year; all these areas have been demarcated. These figures do not include 389 square miles of deodar forest leased from Native States, or 2,709 square miles of unclassified State forests. Complete surveys and working plans have been prepared for 581 square miles of forest, of which 199 square miles were done during the year. Fires were excluded from 96 per cent. of the 426 square miles where fire protection was attempted. The plantations of the year cover 1,343 acres, and the total area of plantations is now 19,399 acres. The large Changa Manga plantation of 9,080 acres, in the sandy plains at the end of the Baree Doab Canal, yielded a revenue of Rx. 1,357, against 4,059 in the preceding year, while the total charges for that plantation were Rx. 2,163; the reduction of revenue from this plantation is due to the cessation of the railway demand for wood fuel, and the working arrangements of the plantation are being reconsidered. The total forest revenue of the Punjab was Rx. 78,692, against an expenditure of Rx. 67,791, leaving a surplus of Rx. 10,902, or Rx. 30,175 less than in the preceding year. Of the revenue, Rx. 32,715 were derived from timber, and 45,929 from minor forest produce. The large decrease in forest receipts was due to the reduced demand for sleepers and fuel on the railways, which are now burning coal instead of wood. The villagers do not buy fuel from the plantations.

Central Provinces.

The area of Reserved Forests in the Central Provinces is now 19,531 square miles, an addition of 97 square miles having been made during the year. The forest surveyors began work during the year in two districts for the first time; but no working plans have yet been prepared. In different ways fresh effort has been made during the year to make the conservation of first-class reserves as complete and as strict as possible; while culturable land not suitable for permanent reservation is being made available for the extension of cultivation. The forest area under strict fire protection was 1,908 square miles, from 93 per cent. of which fire was entirely excluded; the success in this respect was about the same as in the previous year; nearly the whole of the burnt area pertained to the Nimar district; elsewhere the fire protection was highly successful. There are no regular plantations in the Central Provinces; but a certain amount of work was done in planting small open spaces in a few reserves. The revenue of the year was Rx. 109,336, against an outlay of Rx. 52,649, leaving a surplus of Rx. 56,687; this surplus was Rx. 10,875 more than in the previous year by reason of the enhancement of the rates charged in most districts for grazing. The total stock that paid fees for grazing in State forests during the year were 2,761,943 horned cattle, and 494,422 sheep and goats. If it were not for the forest reserves stock-raising in the Central Provinces would be a more difficult matter than it now is.

Lower Burma.

An area of 303 square miles was added to the Reserved Forests of Lower Burma, bringing the total area of reserves up to 5,091 square miles. Detailed surveys were executed of 199 square miles of Reserved Forests, besides 139 square miles of Karen allotment inside, and of other forests outside the reserves. Working plans were pushed forward in five more reserves.

reserves of the Pegu circle. An area of 1,796 acres was added to the teak plantations, which now cover 15,251 acres. Partly in consequence of the dryness of the season, and partly from incendiarism by bad characters, fire protection was less successful than usual; and fire was excluded from only 70 per cent., against 91 per cent. in the preceding year, of the forests over which fire protection was attempted. The yield of the forests was 42,331 tons of teak, and 98,529 tons of other timbers; the great increase of 45,778 tons on the yield of other timbers, as compared with the preceding year, was due partly to improved trade, and partly to the demand on account of the Mandalay Railway. The imports of teak into Lower Burma were 104,683 tons by the Salween, as compared with 140,948 tons in the preceding year; and 40,500 tons by the Irrawaddy and Sittang, as compared with 43,600 tons. The exports of teak by sea were 168,924 tons, or 24,590 tons higher than in the preceding year; the average export price was Rs. 69 per ton, as against Rs. 67 $\frac{3}{4}$ per ton in 1886-87. The total forest revenue was Rx. 221,889, or Rx. 22,023 better than in the previous year; while the surplus was Rx. 118,620, or Rx. 26,336 above the surplus of the year 1886-87. The improvement was due to the rise in the price of teak, to the great demand for other timbers, and to the increased production of cutch.

In Upper Burma there are vast forests belonging to the State; but the best teak forests were leased by the late Ruler to different traders for varying periods. These leases the British Government has respected; but steps are being taken to prevent the destruction or wasteful working of the forests. To this end a Forest Regulation has been passed; a staff of forest officers is being organised; the lessees are controlled by the Regulation and the rules; and care will be taken that no forest is worked to exhaustion. The work of the forest officers at present consists in the prevention of breaches of the forest law, in explaining the forest system to the people, in examining the forests, in collecting revenue on produce from forests outside the leased areas, and in preventing the overworking of the leased forests. The principal forest lessees, the Bombay Burma Company, girdled 26,500 teak trees in the Chindwin forests; and 78,379 tons of teak in all were brought out of the forests. The forest revenue of the year was Rx. 29,687, against an expenditure of Rx. 12,115, yielding a surplus of Rx. 17,572. Upper Burma.

An area of 710 square miles was added to the Reserved Forests of Madras; the total area of reserves at the end of the year was 4,041 square miles, besides 12,065 square miles of other Government forests. The departmental surveys of forests have been found unsatisfactory, and surveys are now being made by professional agency from the "Survey of India"; little was done towards the preparation of working plans. The area under fire protection was 2,570 square miles, or 321 more than in the previous year; fire was successfully excluded from 95 per cent. of this forest area, as against 91 per cent. in the year 1886-87. Natural reproduction is reported to be making good progress in forests from which both fire and grazing animals are excluded; and the more valuable forest trees are the most vigorous reproducers. An area of 629 acres was added to plantations, chiefly in the southern circle. The forest revenue was Rx. 137,492, against an expenditure of Rx. 112,851, leaving a surplus of Rx. 24,640, or Rx. 15,531 more than in the previous year. The expenditure was slightly smaller than in the previous year, and the receipts on account of timber and other produce worked out by licenses were larger. The forest surplus of Madras is, however, still below what it was in the years 1882-83 and 1884-86. Five years have elapsed since forest administration began in Madras on the system organised by Sir D. Brandis, and legalized by the Forest Act of 1882. During these five years the area of forest under departmental control has risen from 2,794 to 17,006 square miles; the forest revenue has increased from Rx. 90,391 to Rx. 137,492; and the Board of Revenue report that steady progress is being made in reservation and settlement of forests; rough working plans are taking the place of the wasteful permit system; fire protection is becoming something more than a mere name; and forests are being opened out "with roads."

The area of Reserved Forests in Bombay was 9,837 square miles, an area Bombay.
9.85.

FORESTS.

of 205 square miles was added to the Sind Reserves, and 123 square miles were struck off the Reserved Forest area in Bombay proper, chiefly by a reduction of the Dang forest area, over which a survey has now been carried. The investigation and settlement of private rights has been completed in Sind, nearly completed in the southern forest circle, and is well forward in the northern circle. Surveys were made of 115 square miles in the Kanara forests, at a cost of Rx. 25 per square mile, and 290 square miles of the Thana and Nasik forests, at a cost of Rx. 13 per square mile. Working plans were completed for 147 blocks of the Thana forests; and in 37 of these blocks an area equal to $\frac{1}{4}$ th of the block was marked for the year's cutting and was offered for sale. Fire was more destructive than in the previous year; fires passed over one-ninth of the forests of the northern circle, were reported to be "as prevalent as ever" in the southern circle, but did no harm in the Sind forests. An area of 488 acres was added to the plantations of teak and other valuable trees, while 30,777 acres were sown broadcast. Growth and natural reproduction of trees continued to be fair in the northern circle, but did not improve in the southern circle by reason of the frequent forest fires. Good progress was made with forest roads, and surveys were made for a short tramway to valuable forests in the southern division. There was a decrease in the yield of teak, but the out-put of petty timbers and bamboos, and the yield from grass and grazing, was as large as ever. The Southern Mahratta Railway took much more and the North-Western Railway took much less firewood from the forests than in previous years. The total forest revenues were Rx. 303,557, or about the same as in the previous year, while the surplus was Rx. 110,005, or Rx. 3,244 less than in the preceding year. The decrease was due to the smaller out-put of teak and the smaller yield from saw-mills in the southern division; it is doubtful whether the Forest Department saw-mills can any longer be worked at a profit now that the Southern Mahratta Railway has set up its own saw-mills.

AGRICULTURE AND MINERAL RESOURCES.

IN Ajmere the rainfall was unseasonable, and in February 1888 the district suffered from severe hailstorms. The yield of the food crops was as for the previous year short, and prices were high; fodder was short in June and July 1887, but was fairly abundant in 1888. Cattle disease was very prevalent. In Coorg the rainfall was slightly above the average, and ordinary crops were good; but the rainfall was unseasonable for coffee, which yielded a short crop. The area under coffee increased to 84,658 acres, of which 39,239 are held and owned by European planters.

AGRICULTURE.
Ajmere and
Coorg.

The rainfall of July and October was unusually heavy in Berar, doing much harm to the autumn crops, especially to the cotton and millet. The average price of the latter, which is the staple food of the people, rose from 31 and 29 seers in the two previous years to 20 seers per rupee in 1887-88. The spring crops were benefited by the late rain, and gave a good harvest. The cotton area decreased by $7\frac{1}{2}$ per cent., and the wheat area increased by 12 per cent. The experimental farm at Akola was closed during the year; but at the Amraoti farm successful experiments were made with oats and with long stapled cotton of the "bunjee" variety. A horse and cattle show was held at Akola, but was not very successful. Eleven horse stallions were usefully employed; but the attempt to establish mule-breeding has not yet been successful, only five mares were brought to the two donkey stallions owing to prejudices on the part of the people. Of the six Berar students at the Bombay veterinary college, three were expelled or absconded; and three other students were sent to the college. Berar was remarkably free from cattle disease during the year.

Berar.

In Eastern and Northern Bengal the rainfall was abundant, and harvests were good. In Central Bengal, though the rainfall was somewhat deficient, the crops were on the whole fair. In Behar and Chota Nagpore the harvests were short; and in part of the Pooree district of Orissa there was serious failure of crop. Special inquiry was made during the year into the condition of the lower classes. It was found that, "in the greater part of Bengal these classes find no difficulty in supplying their primary wants, and are as a rule well nourished; that their prosperity was greatest in eastern districts, gradually diminishing towards the west, but that in Behar wages are so low that classes depending on daily labour earn a very scanty subsistence." Inquiries made regarding agricultural methods in the districts of Dinagepore and Rungpore showed that a large area of cultivated land was lying untilled on account of the scarcity of labourers. It was found that the Behea sugar mill is largely used by sugar growers in those districts, as many as 300 being at work on one estate in one year. Experiments with different manures and with special staples were made through 50 ryots on their own lands, and on a small experimental farm near Calcutta; these, as well as operations on the Maharaja of Dumraon's farm, were under the supervision of the Agricultural Department. Potato cultivation has been successfully introduced into a part of Orissa; but the potatoes of Darjeeling and the Khasia hills are said to be deteriorating. Attempts to eradicate the silk-worm disease, which has for years affected the Bengal silk industry, were prosecuted. A Bengali graduate of Cirencester College studied the systems of selecting eggs and rearing silk-worms in France and Italy, and has returned to India to carry out what he has learned. Three Indian students from Cirencester College have been taught at Paris the Pasteur system of preventing cattle disease, and have gone to India ready to introduce the system under the direction of the Agricultural Department. The yield of jute was above the average, and the export of jute and of jute bagging was 17 and 14 per cent. respectively above the previous year's figures. The yield and the exports of indigo were about the same as in the previous year; while the price was somewhat higher. The cotton exports declined by 20 per cent., and the wheat exports by 38 per cent. in comparison with the preceding

Bengal.

AGRICULTURE.

Assam.

year; the decrease was due to the shortness of the harvests in the tracts supplying these staples to Calcutta.

In Assam the rainfall was short, but it was seasonable; and the harvests were on the whole good. The potato crop of the Khasia hills failed; prices of food ranged high throughout the province; and wages are said to have fallen in the Khasia hills from eight annas to five annas a day. The work of training the circle officers and village headman in Assam made good progress; 552 of these officials now hold certificates of efficiency, 85 new men having qualified during the year. The number of village records tested by superior officers increased by 31 per cent.; and there was a small diminution in the errors detected, which averaged 4.97 per cent. Some hundreds of crop testings, made in different parts of the province, gave an average yield of 1300 lbs. of paddy (rice in the husk) per acre for autumn or early rice; 1,500 lbs. of paddy per acre for winter or late rice, and 560 lbs. of mustard seed per acre. It was proved by a number of experiments that mustard grown for three years on the same soil yielded 475 lbs. the second year, and only 336 lbs. the third year.

North West
Provinces.

The rainfall of the year in the North Western Provinces and Oudh was abundant; the autumn crops were good, the yield being considerably better than in the previous year; but the spring crops suffered seriously from the late winter rain and from frost, so that the out-turn was indifferent and much below that of the previous season. Local floods did harm in Seharunpore and Aligarh. One result of the abundant rainfall was a reduction in the demand for canal water and a serious diminution of the canal revenue. The public health suffered from cholera epidemics and from excessive damp due to the heavy rainfall. The health of cattle was on the whole good except in tracts that suffered from flood. The price of food grains was dearer than it had been for some years past; and this dearness was due to a succession of short harvests rather than to the export demand. Railway works were in progress in many districts, bringing employment and good wages to the labouring classes, who might otherwise have suffered from the high prices. The Midland Railway was opened into the Jhansi district, and has already caused a rise in the price of land. In a part only of the Agra district were the cultivators found to be in a distressed condition, and in that tract the land revenue assessments have been reduced.

The Seharunpore Botanical Gardens more than covered their total expenses by the sale or issue to public departments of seed, plants, medicinal drugs and fruit. They sent out during the year 25 trained gardeners, all of whom are doing well. Among new plants successfully domesticated during the year, and likely to prove useful, were the Florida melon, of which one plant yielded five melons, weighing 158 pounds; and the teff grass of Abyssinia, which promises to prove a good fodder. Experiments in the application of gypsum, as a stimulating manure, showed that cereals derived no benefit from the gypsum, while fodder plants and beans gave a largely increased yield.

Oudh.

The heavy autumn rainfall in Oudh caused an increase of 100,000 acres in the rice area, of 236,000 acres in the double-cropped area, and of 40 per cent. in the sugar-cane lands, and of 14 per cent. in the irrigated area. About 20 per cent. of the cultivated area of Oudh was irrigated, and one half of the irrigated land drew its water from tanks that were filled by the early autumn rains. There was some decrease in the wheat area, and by reason of the poor spring harvest, the wheat exports were 33 per cent., and the oil seed exports 40 per cent., below the figures of the preceding year. The exports of sugar and of grains other than wheat were double those of the preceding year. The preparation of the annual village papers continues to improve; for 20 estates only were rent-rolls in arrear at the end of the year; while field books and crop statements had been filed for every estate in the province, and out of 30,890 field books no less than 26,445 were delivered before the prescribed date. The patwaris, or village accountants, are improving in efficiency; and in only one district, namely Sultanpore, is there left any considerable number of patwaris who have not passed the prescribed examination in surveying, book-keeping and village accounts.

Punjab.

The season of 1887-88 in the Punjab was moderately prosperous. The

deficient

deficient spring harvest of 1887 was followed by a good rainy season, and by a favourable autumn crop, excepting only cotton which suffered from excessive rain. The winter rains, though late, were in time to save the spring harvest of 1888, which was better, both in yield and area, than that of the year 1887. The crop area showed an increase of 609,013 acres on the autumn crop, and 1,863,621 acres on the spring crop, as compared with the previous year; cotton was the only considerable crop that showed any shrinkage of area. Prices keep high owing to the export demand, and the improved facilities for sending away surplus food. Cash rents are lowest in the Derajat and in Hissar, where they range from $\frac{1}{2}$ a rupee to 2½ rupees per acre; in the Central Punjab, rents on irrigated lands are as high as 20 rupees an acre; and reach 30 or even 75 rupees an acre in the Jullundur Doab. Produce rents range from one-fourth to two-fifths of the gross yield. The introduction of new and better kinds of date palm seems now to be assured. At the veterinary school at Lahore only 13 students passed as compared with 25 in the previous year, and the number of students on the rolls fell from 73 to 60, while the annual entries of new students decreased by 14. There are now 182 Government stallions employed in the horse-breeding districts, of which 58 are Arabs, and 111 English horses; 5,865 mares were covered by these sires, and in 32 per cent. of the cases foals were thrown. Horse-breeding is said to be giving place to mule breeding, and 217 donkey stallions are kept by Government; 13,113 mares were covered by donkeys, and in 21 per cent. of these cases mule foals were thrown. At the more important horse-fairs there was a considerable decrease in the number of horses, and an increase in the number of mules exhibited; but the decrease is attributed not to a falling off in the popularity of the fairs, or to a deterioration of the young stock, but to the unusual dearness or lack of fodder. Cattle disease was rife in the southern districts, while the northern districts were comparatively exempt. The attendance of cattle at the chief cattle fairs was high, reaching as high as 70,623 head at the Amritsar fair. The number of exhibitors of silk at Pathankot showed some small increase; the sericultural operations of the year showed that worms raised from foreign seed were liable to several diseases which have not attacked the indigenous worms.

The autumn rainfall in the Central Provinces was unusually heavy; the rice crop was excellent, and the wheat harvest was the best that has been reaped for several years; but the millet (jowar) crop was poor, and the cotton crop nearly failed; the linseed harvest was poor. Prices of rice and wheat fell; but the price of jowar (millet) remained at the high level of the two previous years. The crop statistics apply to only about 46,000 square miles out of the 116,000 square miles which constitute the Central Provinces; 20,000 square miles are Government forest, 29,500 square miles are feudatory chiefships, and 21,500 square miles are large zemindaris for which statistics are not at present available. About 46 per cent. of the area to which the statistics pertain is under crop, five-sixths being food grains, and one-sixth oil-seeds, cotton, and other crops. The year was unfavourable for the Nagpore experimental farm, which has been used as a training ground for technical education. The training of patwaris (village accountants) in surveying here made excellent progress; these officials are now qualified to make a cadastral survey of their districts, as well as to prepare and keep in efficient state the village records and maps.

In seven districts of Lower Burma the supplementary survey, or yearly testing and correction of village maps and records, was satisfactorily carried on. A considerable proportion of the results was tested by superior officers; errors were found, but the work and the circle officials employed thereon are reported to be improving. Survey schools continue to turn out a moderate number of certificated students. Arrangements are being made for a field survey of the comparatively backward districts which are not taken up by the cadastral survey; indigenous Burmese and Karen surveyors are to be employed, and their work is to be tested by professional traverse parties. A beginning was made with a field survey in the Kyaukse district of Upper Burma. The grazing grounds already set apart were maintained, but no additional plots were reserved for grazing. Experiments with wheat,

AGRICULTURE.

maize, and tobacco were not on the whole successful; but along the Ngawun river in the Bassein district tobacco growers appear to have regularly adopted the system of drying their tobacco in the shade; and they are said to get a much higher price for their produce than those who dry their tobacco leaf in the sun. Sixteen veterinary assistants were at work among the herds of cattle during the year; regarding only one of these were unsatisfactory reports received; the work of the remainder was approved; and from some districts it was reported that these trained Burmese cow-doctors had given satisfaction to and been valued by the people. Six Arab sires were at work in Lower Burma serving pony mares during the year; steps for improving the breed of ponies in Upper Burma were under consideration.

The season of 1887-88 was favourable in all parts of Madras except the two southern districts of Madura and Tinnevely; the rainfall was 47½ inches as against 46, the normal average, and it was well distributed. The favourable season caused an increase of 500,000 acres, or 2 per cent., in the area under cultivation; and the prices of most food-grain were lower than had been known for some years. The Agricultural Department has been placed directly under one member of the Revenue Board, who is *ex-officio* director, and is assisted by a deputy director. This latter officer was engaged during the year on an analysis of the Kurnool district with reference to its security from famine. The condition of the village records was fairly satisfactory; 87 more revenue inspectors passed the prescribed survey test; new regulations for the training of village headmen and accountants have been formed; and a manual for the use of village revenue officers has been prepared. For all districts it has been settled that the land revenue shall be payable in four instalments from December to May, except in Tanjore, where eight instalments will be retained. A professional tobacco-curer was deputed to the tobacco lands of five districts, and has submitted a report; he recommends measures for drying the leaf in the shade instead of in the sun. Out of 72 silos that were opened during the year 32 were successful; and one careful observer in the Wynaad found that he could turn out ensilage at a cost of 20 cubic feet per rupee, enough to feed 25 head of cattle for a day. Most cattle are found to eat ensilage readily enough. Three agricultural exhibitions were held at places in the central districts; and demonstrations of the working of agricultural implements were given by a travelling show in three districts under agricultural officers. Out of 250 improved ploughs sold in the preceding year 205 were found to be in actual use. Arrangements have been made for systematising the tassar silk industry; but it is too early to judge of the results. A depôt for keeping young bulls and sending them out to districts has been established at Hosur in the Salem district; and at that depôt will be kept the sheep formerly bred at the Saidapet farm. The number of pony stallions kept in the Coimbatore and Salem districts has been raised from 8 to 10. Seventeen stock inspectors and two probationers were employed on the prevention of cattle disease, which was rife in several districts, especially in Kurnool.

Bombay.

The rainfall of 1887-88 was irregular and unseasonable over the greater part of Bombay. The greater millets (jowar and bajra) and cotton did not give a good yield, except in a few districts above the ghats; the wheat and other spring crops did well. The special agency for inspecting boundaries was not extended beyond the two districts of Dharwar and Bijapore; in these districts, the agricultural department found it possible to abandon nearly two-thirds of the field boundary marks that had previously been maintained; the percentage of error in the village record of crops was found to be large. Returns of agricultural stock in a new shape have now been collected for two years; the information appears to be more correct than it used to be, and in many cases the increase over previous figures is considerable. The gross crop area of the province was nearly stationary: food crops occupied 81 per cent. of the cultivated land, the greater millets held 46 per cent. of the total crop area, and cotton 11 per cent. The analysis of all Bombay districts with reference to their liability to famine was completed, and an atlas, with suitable information for each district, was prepared. The Bhadgaon farm was successful with ensilage and arrowroot experiments and with exotic cotton; the experiments with selected seed

seed were not satisfactory. The Poona farm was attached to the college as a field for the instruction given by the natural science professor. Five agricultural shows were held in British districts, and four in Native States; at Shikarpur was exhibited machinery worked by steam, by cattle, and by hand power. The Bombay veterinary college now contains 85 students, of whom 28 have nearly finished their course.

The crop testing experiments conducted by officers, Native and European, under the Agricultural Department, gave satisfactory results. They have now been carried on for five years, and the results go far to substantiate the previously accepted estimates of yield and of profits per acre. The wheat yield for Bombay apparently ranges from 600 lbs. to 900 lbs. per acre; and the rice yield is 1,600 lbs. per acre. Several distinct experiments in different districts and under different officers gave a return ranging from 5,520 lbs. to 8,171 lbs., and averaging 6,448 lbs. of coarse sugar per acre of sugar cane land.

The agricultural departments of the several provinces continue to publish forecasts, month by month, of the areas under, and the prospects of harvest of the more important staples, namely,—

Wheat. Cotton.
Oil-seeds. Jute.
Burma rice.

The ascertained and estimated area under wheat, is given at:—

WHEAT.

	Supposed Average Wheat Area.	Area cultivated with Wheat in	
		1887-88.	1888-89.
	Acres.	Acres.	Acres as Estimated.
Punjab	6,765,000	6,179,800	6,919,000
North-West Provinces and Oudh	5,081,000	4,952,354	5,000,000
Central Provinces	3,967,000	4,601,683	3,866,000
Bombay	2,871,000	3,040,954	2,970,000
Berar	855,000	1,052,918	942,000
Béngal (estimated)	1,267,000	1,085,212	980,000
Rajputana	1,984,000	1,514,505	1,700,000
Central India (estimated)	3,500,000	2,884,765	3,200,000
Nizam's Territory	1,016,000	1,067,022	900,000
Mysore (estimated)	17,000	5,669	6,000
Cashmere	500,000	500,000	500,000
Madras	25,000	31,024	20,000
Other Native States, probably about	800,000	800,000	800,000
TOTAL	28,648,000	27,685,906	27,783,000

The yield of wheat, and indeed of most food crops, in 1887-88 was short over a great part of India; and this caused a diminution in the wheat exports, which amounted to,—

1,047,824 tons in -	1883-84	1,113,167 tons in -	1886-87
792,714 " " -	1884-85	676,908 " " -	1887-88
1,053,025 " " -	1885-86	881,114 " " -	1888-89

Besides this export of wheat, an export of flour ground at mills in Bombay is springing up, which had reached 322,164 cwts. in 1887-88. Most of this flour goes to ports in Asia and Africa; none as yet comes to Europe. The wheat exports go nearly one-half to the United Kingdom and the rest to Italy, France, and other parts of Europe. The latest accounts of the wheat crop of 1889 are that "the extent and quality of the wheat harvest will be quite up to the ordinary standard," and in some cases will be specially good, throughout Northern India; but in the Central Provinces, Berar and Bombay, the crop and the area of wheat will be decidedly below the average.

114. STATEMENT EXHIBITING THE MORAL AND MATERIAL

COTTON.

The area under cotton in the latest years for which figures are available was :—

	Ascertained Figures		Approximate Figures.
	1885-86.	1886-87.	1887-88.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Madras	1,607,028	1,733,752	1,700,000
Bombay and Sind	2,225,000	2,912,162	2,837,000
Bombay Native States	2,700,000	2,646,594	2,737,000
North-West Provinces	1,587,346	1,729,735	1,335,000
Oudh	72,030	95,972	59,000
Punjab	1,035,614	641,500	756,000
Central Provinces	595,362	657,021	592,000
Berar	1,846,470	2,068,045	1,920,000
Nizam's Dominions	910,610	953,170	950,000
Mysore	29,123	42,844	42,000
Lower Burma	9,142	8,254	9,000
Assam	42,131	39,669	40,000
Central India	306,272	286,242	286,000
Rajputana	536,444	654,771	654,000
Bengal			
Permanently settled parts of Madras	1,250,000	1,250,000	1,250,000
Upper Burma			
Other Native States			
TOTAL	14,753,172	15,782,731	15,167,000

No statistics of cotton lands are available for the great province of Bengal, for the permanently settled districts (about one fifth) of Madras, for Upper Burma, or for the Native States outside Bombay, Rajputana, Central India and Hyderabad. The estimate taken above for all these provinces is probably within the truth. The yield of cotton in 1887-88 was fair in Bombay, and was considerably below the average in Northern India, Berar, and the Central Provinces. The exports of raw cotton from India were,—

1884-85	-	-	5,066,057 cwt., valued at Rx. 13,236,300
1885-86	-	-	4,189,718 " " " 10,777,200
1886-87	-	-	5,432,648 " " " 13,468,400
1887-88	-	-	5,374,542 " " " 14,412,800
1888-89	-	-	5,331,904 " " " 15,046,593

of this quantity not quite 40 per cent. went to the United Kingdom. A great part of the Indian cotton sent to England is re-exported in the raw state to the Continent of Europe.

SUGAR.

For some years past the Government of India have been collecting information concerning the cultivation of sugar in India, and an abstract of that information has recently been furnished. The growth and the consumption of sugar have greatly increased during the past 15 years. The extension of canal irrigation in Northern India, and the abolition of the internal Customs line, at which duties amounting to Rx. 120,000 used to be levied on all sugar passing westwards from the Ganges Valley, have been among the chief causes of the increase. The diffusion of money by reason of the extension of trade, and the general rise in standard of comfort over a great part of India, have contributed to increase the consumption of sugar, which, besides tobacco, is the chief, almost the only, luxury enjoyed by the great mass of the population. The area under sugar cane in India is now quoted at 2,500,000 acres, with a yield of 2,500,000 tons of unrefined sugar, or about one ton of coarse sugar to the acre. Most of the sugar is manufactured on the spot by the petty farmers who grow it; but there are a few factories, as at Aska in South India, and the Rosa factory in Shahjehanpore

of North India, and near Calcutta, where sugar and its products are refined on a large scale with modern appliances. AGRICULTURE.

The external trade of India in sugar has altered during recent years. In 1850 she used to export Rx. 1,824,000 worth of sugar, in the year 1886, notwithstanding the increased production of sugar, she exported only Rx. 492,000 worth of sugar. In the years 1860-62 she imported Rx. 226,000 worth of sugar annually, whereas India's average importations of sugar during the years 1884-86 were valued at Rx. 1,800,000 a year. The total consumption of sugar in British India is now about 2,600,000 tons of coarse sugar, valued at Rx. 10 per ton, or about five-sevenths of an anna per lb. This gives an average consumption of sugar of 26 lbs. (or about 1½ rupees worth) per head of the total population per annum. An average Indian's yearly expenditure on salt, at 12 lbs. per head per annum, would be half a rupee a year as against 1½ rupee spent on sugar. The yearly consumption of sugar in other countries is quoted at 70 lbs. per head in the United Kingdom, 60 lbs. in the United States, 27 lbs. in France, 19 lbs. in Germany, and 9 lbs. in Austria.

The area under tea cultivation and the yield of tea in India continues to increase.

The returns of the last two years show:—

	Area in Acres under Tea Cultivation in	
	1886.	1887.
Bengal - - - - -	69,810	73,641
Assam - - - - -	203,093	211,079
Madras - - - - -	7,023	14,301
North-Western Provinces - - -	8,373	8,280
Punjab - - - - -	9,085	8,502
TOTAL - - - - -	298,284	312,803

The yield per acre is returned at 385 lbs. in Assam, and 336 lbs. in Bengal. The total yield of Indian tea was estimated for the year 1887 at 92½ million lbs. as compared with 82½ million lbs. in 1886. The total exports of tea from India were 78½ million lbs. in 1886-87, 87½ million lbs. in 1887-88, and 97 millions in 1888-89. According to British returns the importations of tea into the United Kingdom during the year 1887 were:—

	£.
From China - - 119½ million lbs., valued at - -	4,641,000
„ India - - 84½ „ „ „ - -	4,211,000
„ Ceylon - - 13 „ „ „ - -	756,000

Importations from China fell off by 25½ millions between 1886 and 1887; from India they increased by 11 millions and from Ceylon by 6 millions of lbs. in the same year. The Indian tea exports to Australia were two and a half millions of lbs. The United Kingdom returns for the month of December 1888 show the total imports of tea during the year 1888 from China at 105½ million lbs. valued at 4,336,000 £, and the total imports from India and Ceylon together at 113 million lbs. valued at 5,679,000 £.

The area under coffee was, approximately,—

Coorg - - - - -	84,658 acres.
Madras - - - - -	59,612 „
Mysore - - - - -	113,116 „
Travancore, Cochin, &c. - - -	8,751 „
Total - - - - -	266,137 acres.

AGRICULTURE.

At an average yield of $1\frac{1}{2}$ cwts. to the acre this would give a total production of 399,205 cwts. The total exports of coffee from India have been 370,000 cwts. in 1886-87, 273,000 cwts. in 1887-88, and 365,000 cwts. in 1888-89.

CINCHONA.

The area under cinchona in the Government plantations of the Darjeeling district in Bengal is 2,208 acres, on which were growing 4,851,000 cinchona trees in permanent plantations. Four-sevenths of the trees belonged to the *calisaya*, or quinine-yielding variety, and three-fifths to the *succirubra*, or cinchonine-yielding variety. During the year 375,000 trees of the latter species were uprooted for their bark, and 424,000 trees of the former, or more valuable species, were planted out. The crop of bark amounted to 290,000 lbs. of dry bark, or 27 per cent. above the preceding year's yield. The whole of this supply, except 855 lbs., was made over to the factory, which manufactured 6,916 lbs. of cinchona febrifuge and 331 lbs. of sulphate of quinine. The issues of these medicines during the year were 8,089 lbs., or 20 per cent. larger than in the preceding year. The public purchased 3,225 lbs., the rest being issued to public hospitals and departments. The cost of the plantations, irrespective of interest on capital, was Rx. 7,670; and the money yield of the factory, at the rates of 14 rupees per lb. for febrifuge and 20½ rupees per lb. for quinine, was Rx. 13,751 on the medicine issued to the public and to Government departments. The stock of bark at the end of the year was 296,000 lbs., of which more than half was *calisaya* bark. A new mode of manufacturing quinine by steeping the powdered bark in cold oil was perfected during the year; it is said to yield a particularly good quinine, which three different professional analysts have examined and have pronounced to be "equal to the very best in the market, and perfectly pure."

The area under cinchona on the Government plantations of the Nilgiri district, in Madras, is 908 acres, on which were growing 1,740,000 cinchona trees in permanent plantations. This is 198,000 less than were returned in last year's report, because a part of one plantation has been abandoned and the trees have been uprooted. The crop of the year gave 93,000 lbs. of dry bark, of which only 7,000 lbs., valued at Rx. 120, were issued. The rest of the bark was stored; and the quantity in store was 251,000 lbs. at the end of the year. It is intended to convert this bark into quinine and cinchona febrifuge on the plan now being adopted in the Bengal plantations. Buildings and machinery for carrying on the factory were being erected at the end of the year; and the Government quinologist had visited the Darjeeling factory in order to learn the system invented and introduced there. The total outlay on the plantations during the year was Rx. 7,216, making the bark harvested cost 11 annas a pound.

The area under cinchona on private plantations is returned at 1,355 acres in Bengal, and 6,444 acres in Madras, besides about 2,000 acres in Coorg and Mysore.

The exportations of cinchona bark from India rose from 1,286,900 lbs. in 1886-87 to 1,449,313 lbs. in 1887-88, and to 3,074,098 lbs. in 1888-89.

AGRICULTURAL
DEPARTMENTS.

In the year 1888 the Government of India made careful inquiries into the working of the agricultural departments in the several provinces. It was found that the additional cost to the State caused by the recently constituted Departments of "Land Records and Agriculture" in each province was Rx. 40,000 a year for the whole of India. The first duty of the new departments had been the organization of village accounts and records, with the object of obtaining accurate information concerning the circumstances of every agricultural tract and concerning the condition of the people thereof. Secondly, the duty of the department was to introduce increased economy and punctuality in future revisions of the land revenue settlement. The first object is being gradually attained by the systematic training and inspection of village accountants and their work. The arrangements for securing the second object have been the preparation of a working plan for promptly and regularly effecting revised settlements in every province, the simplification of the system of cadastral or field survey, and the utilization of indigenous village agency in effecting such surveys. So far have these operations

operations been carried that the Government of India now estimate that during the next 30 years a saving of 370 to 468 lakhs, or from Rx. 120,000 to Rx. 160,080 a year will be effected, without taking any credit for savings in Madras or Bombay, on the cost of making revised settlements under the old system. For instance, in the Central Provinces the new cadastral surveys are being made by the village accountants who have been specially trained to the work; their surveys are tested by professional traverse surveys; and the whole work of re-survey and settlement will cost Rx. 10 per square mile as compared with Rx. 25 or 30 under the old system. In the North-Western Provinces the existing village records, after being verified and corrected, are made the basis of the new settlement, and the cost of a re-survey is obviated. In Burma a yearly supplementary survey is effected, whereby the cadastral maps and records are corrected and brought up to date, so that a re-settlement will be feasible without any re-survey or record of rights at the end of the 15 years for which the present settlement runs. Besides this direct fiscal advantage the agricultural community are saved much expensive litigation by the orderly and systematic maintenance of the village land records, while they will be spared from the harassment caused by periodical settlement inquiries. The agricultural departments are debarred from expending public money on agricultural experiments save under careful restrictions. Their efforts towards agricultural improvement are directed towards educating landholders and tenants to introduce improvements on their lands without official aid, towards bringing into the country a knowledge of the sciences which are useful to agriculture, and towards technical education. Steps are being taken to extend the course at the Dehra Forestry School, to improve the agricultural course at the Poona College and other institutions, to found a veterinary department and veterinary classes for the benefit of the agricultural population, and to introduce European methods of dealing with or preventing cattle disease and silk-worm disease.

AGRICULTURAL
DEPARTMENTS.

MINES AND MINERAL RESOURCES.

Out of 105 collieries in Bengal 62 were worked during the year 1887, with a total output of 1,319,090 tons, as compared with 1,186,802 tons in the previous year. Outside Bengal, the Warora Mine in the Central Provinces, and the Teak mine in Upper Assam, were the only collieries that gave a considerable yield. The Damdot Colliery in the Jhelum district of the Punjab yielded 7,528 tons for the North Western Railway, and the Umeriah colliery in Rewah raised 15,497 tons. No yield was reported for the year 1887 from the Singareni field in the Hyderabad territory. The total yield of all Indian coal-fields was 1,560,393 tons, or 171,806 tons more than in the preceding year. The importations of coal, coke, and patent fuel into India by sea, were 848,878 tons, of which 96 per cent. came from the United Kingdom, and the rest, all but one Japan cargo, from Australia. This importation was 10 per cent. higher than in the preceding year; on certain railways in the interior where wood fuel was formerly used, coal is taking its place. When the coal sources in Singareni, in Burma, at Umeriah, and on the Bengal-Nagpore line are adequately worked, Indian coal is likely to come still more into use. In the Bengal coal-field, collieries are worked entirely by companies and other private owners. The principal State colliery at Warora in the Nagpore country, earned 6·8 per cent. on the capital outlay, besides supplying cheap fuel to some hundreds of miles of the Great Indian Peninsula and Bengal-Nagpore railway systems. So far, the explorations for coal in Upper Burma have tended to show that the coal sources in the Shan States are less hopeful than was supposed.

The oil-field of Yenangyoung on the Irrawaddy in Upper Burma has been examined by the Geological Survey, who report that the output of oil might be very largely increased by sinking deeper wells, and pumping; that there is little hope of anything like a springing well; that a great many of the existing native wells, most of which are 100 to 250 feet deep, have fallen into disrepair, and are unproductive; but that even under present circumstances

Earth Oil.

MINERAL
RESOURCES.

stances the industry pays the Burmese oil-workers. As yet the European Firm, who enjoy concessions in the field, have done nothing to introduce scientific methods such as are employed in the American oil tract. The oil of the Khatun field in Baluchistan has not yet been made available in quantity for locomotive on the Quetta Railway, as the oil is too thick to pass through a pipe 40 miles from the oil sources to the railway. Investigation is being made into other oil indications nearer the line. Little has been done to develop the Upper Assam oil sources. Meanwhile the importations of earth-oil into India have continued to increase thus:—

	In the Year 1883-84.	In the Year 1887-88.
Gallons of Oil Imported from:	Gallons.	Gallons.
Russia - - - - -	-	5,035,785
America - - - - -	12,714,697	25,038,620
GALLONS - - - - -	12,714,697	30,074,405

Iron, Copper,
Tin

A company have proposed to take over from Government and to work the Barrakur iron works in Bengal, but the terms of such transfer have not been settled. There has been no notable change in the manner or extent of iron-working after native methods. The operations of the French copper syndicate caused a great rise in the price of copper in every Indian bazaar; but so far no attempts to re-open Indian copper mines have been reported. An officer of the Geological Survey visited the tin workings of Perak and Ranong in the Malay peninsula, and is now investigating the Mergui tin sources, with the view of ascertaining whether any remediable cause prevents these latter tin mines being worked on as large a scale as the former.

Gold.

The Geological Survey examined and reported upon the auriferous rocks in Mysore and the upper basin of the Kistna; they report that in past centuries the gold workings must have been considerable, and that gradually a considerable gold industry will again spring up, now that scientific methods for crushing the ore and reducing gold have been introduced. Two gold mining companies in South India have already attained a paying and gradually increasing yield. The out-put of gold by two Mysore mining companies, that had averaged 6,365 oz. for the first four months of 1888, reached an average of 16,686 ounces for the same four months of 1889. As yet only two of the South India gold mines have paid dividends from their working since the industry began ten years ago.

Rubies.

Tenders were invited in London for a seven years' lease of the Government monopoly of rubies in the ruby mines district of Upper Burma. The tender of Messrs. Streeter & Co. was accepted, and they engaged to pay a rental of Rx. 40,000 a year, plus one-sixth of the profits of the undertaking. The concessionaires have since formed a company, which had a capital of 240,000 £. after paying all preliminary expenses; the lease takes effect from the 1st November 1889; and the concessionaires have sent machinery out to the mines. The terms of the lease and of the regulations concerning the mines safeguard the rights of the ruby mines residents to work their claims on the old system and to obtain new claims hereafter, so long as they pay the prescribed royalty on all rubies or sapphires they may raise.

XI.

PUBLIC WORKS.

The public works of India are classed under three heads, viz., Railways, Irrigation, and Buildings and Roads. The last-named division comprises miscellaneous works of public improvement, including lighthouses and harbours.

PUBLIC WORKS,
GENERAL.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary revenues of the year, i.e. by taxation. For the railways and the more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, no capital accounts are kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of Public Works for 1887-88 is compiled from the Finance and Revenue Accounts of the year :—

RECEIPTS.

	Rx.
Railways - - - - -	14,533,360
Irrigation - - - - -	1,714,274
Buildings and Roads - - - - -	592,338
	<u>16,839,972</u>

EXPENDITURE (exclusive of that charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
<i>Railways :</i>	Rx.	Rx.
Construction - - - - -	80,945	2,251,776 *
Ditto from Famine Relief Grant -	—	—
On Revenue Account - - - - -	16,655,746	—
<i>Irrigation - - - - -</i>	2,461,646	533,048
From Famine Relief Grant - - - - -	91,000	—
<i>Buildings and Roads :</i>		
Military Works - - - - -	1,232,060	—
Civil Works - - - - -	4,218,989	—
TOTAL - - -	24,740,392	2,784,824

* Note.—The outlay on railway construction not charged to revenue in 1887-88 was, in round numbers, Rx. 3,642,000 but there were refunds amounting to Rx. 1,390,000, from the Bengal-Nagpur Railway Company, on the transfer to of the line already constructed by the State.

The harbours of the three Presidency towns are under the administration of port trusts, and loans to the extent of Rx. 600,527 were advanced by Government during the year to these trusts.

RAILWAYS.

RAILWAYS.
Classification.

A full account of the results of railway enterprise in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the operations of the past year.

The three systems on which railways have been constructed and worked in India are the Guaranteed, the State, and the Assisted, though each of these, again, admits of sub-division. The original great trunk lines of India are due to the guaranteed companies. The contract between them and the Government was as follows: the Government gave the land required free of charge; it also guaranteed interest at the rate of 5 per cent. on the share capital raised with its consent, and a lower rate upon debenture capital. A general supervision of the working of the railway is also retained, and Government stores and troops are carried on favourable terms. If the net profits in any half-year fall below the amount of guaranteed interest the Government makes up the deficiency. If they exceed this amount the surplus is equally divided between the Government and the company. Moreover, the Government has the right of buying the undertaking at specified dates, on payment of the value of the shares calculated at their market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885-86, and the Oudh and Rohilkund Railway at the end of 1888. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880-81 a return was made to the system of encouraging private enterprise by State assistance. The nature of the assistance granted varies, but always includes the free gift of land. In some instances, of which the Bengal and North-Western Railway is the most important, lines have been constructed without any direct pecuniary assistance: in others a subsidy or limited guarantee has been granted.

The extension of railways constructed by Native States in their own territories makes steady progress. Ten years ago there were only 155 miles of such railways; there are now 872 miles of line open for traffic which have been constructed under Native Administrations.

The following figures, taken from the Finance and Revenue Accounts of 1887-88, show the financial result of the working of the Railways in India to 31st March 1888:—

	Imperial.	Provincial.	England, including Exchange.	Total.
REVENUE:	Rx.	Rx.	Rx.	Rx.
Railways:				
State Railways - - -	9,371,808	1,499,791	327	10,871,926
Guaranteed Companies (net traffic receipts) - - -	3,636,670	-	-	3,636,670
Subsidized Companies (repayment of advances of interest) -	24,764	-	-	24,764
TOTAL - - -	13,033,242	1,499,791	327	14,533,360

Financial results
to the State.

	Imperial.	Provincial	England, including Exchange.	TOTAL.
EXPENDITURE:				
<i>Railway Revenue Account:</i>				
State Railways:	Rx.	Rx.	Rx.	Rx.
Working expenses - - -	4,792,939	801,248	-	5,594,187
Interest on debt - - -	2,120,328	437,458	784,070	3,341,856
Annuities in purchase of rail-ways - - -	-	-	2,390,861	2,390,861
Interest on capital deposited by companies - - -	378	-	666,987	666,365
Guaranteed Companies:				
Surplus profits, land and super- vision - - -	714,057	-	-	714,057
Interest - - -	25,595	-	3,827,351	3,852,946
Subsidized Companies:				
Land, &c. - - -	29,611	14,616	-	43,627
Miscellaneous railway expendi- ture - - -	42,598	9,240	-	51,847
TOTAL - - -	7,724,906	1,262,571	7,668,269	16,655,746

In these figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, for land and control required by the companies, and for miscellaneous items, such as head-quarters establishment and surveys, and also loss by exchange. After meeting all these expenses the total charge to the State in 1887-88 was Rx. 2,122,386. It is estimated that the charge to the State will be somewhat higher during 1888-89; but in subsequent years it is anticipated that the charge will be gradually reduced, as additional lengths of line, now approaching completion, are opened for public traffic.

The general results of the working of the various classes of railways up to 31st December 1888 are given in the following table. The actual aggregate net receipts realised by all Indian railways amounted to 5.12 per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges:—

General results of the working of the railways.

Railway Statistics, 1888.

CLASS.	Length of Line open on 31st December 1888.	Total Capital Outlay on open Lines to 31st December 1888, including Steam-boat Service and Suspense.	Total Number of Passengers Carried.	Total Weight of Goods Carried.	Gross Earnings, including Steam-boat Service.	Working Expenses, including Steam-boat Service.	Net Earnings, including Steam-boat Service.
	Miles.	Rx.	No.	Tons.	Rx.	Rx.	Rx.
State, Imperial	7,393.25	105,356,518	39,182,174	11,548,522	9,915,108	4,833,578	5,081,530
State, Provincial	1,657.94	15,699,639	13,972,101	2,011,590	1,630,681	852,136	778,545
Guaranteed Companies	3,934.96	62,523,749	44,839,731	7,795,080	7,484,397	3,772,104	3,712,293
Assisted Companies	595.02	3,787,442	2,565,750	475,783	364,247	210,523	153,724
Native States	872.77	5,786,360	2,598,318	562,609	370,444	202,727	167,717
Total	14,453.94	193,154,378	103,158,074	22,393,584	19,764,877	9,871,068	9,893,809
Total for 1887	14,068.11	182,879,265	95,411,779	20,195,677	18,468,128	9,103,307	9,364,821

RAILWAYS.

It will be observed that with an increase of 385·83 miles, or 2·74 per cent., in the open mileage, as compared with 1887, the gross earnings show an increase of Rx. 1,296,749, or 7·02 per cent., while the working expenses exhibit an increase of Rx. 767,761, or 8·43 per cent.; the net earnings showing an increase of Rx. 528,988, or 5·65 per cent.

The total number of passengers carried, was better than in 1887 by 7,746,295, and the tonnage of goods moved by 2,197,907 tons.

The railway mileage open on the 31st of March 1889, was 15,243½ miles. In the 12 months then ended, 880½ miles of railway had been completed and opened for traffic. In addition, there were then 2,272* miles of lines under construction or already sanctioned, of which 680½ had received sanction in the year 1888-89.

The chief sections of railway opened during the year 1888 were 110 miles of the Bengal-Nágpur Railway, 80 miles of the Mysore Railway, 302½ miles of the Indian Midland Railway System, 220 miles of the Toungoo-Mandalay extension in Burma, 76½ miles of the Nizam's Guaranteed Railway (including 21½ miles forming the Bezvada Extension Railway in British territory), and 66½ miles of the Bhavnagar-Gondal Railway System in Kathiawar. The chief extensions sanctioned during the year, were 301 miles of the Villupuram-Dharmavaram Railway, 72 miles of his Highness the Gaekwar's Railways, 25 miles of the Morvi Railway, 98 miles of the Rajpura-Bhatinda Railway, and 162 miles of the Delhi-Kalka Railway.

Of the important bridges mentioned in last year's Report as then under construction, the "Lansdowne" Bridge over the Indus at Sukkur was completed, and formally opened by his Excellency the Governor of Bombay on 27th March 1889. The works on the bridge over the Chenab near Sher Shah are being rapidly pushed forward.

The tunnel through the Khwaja-Amran Mountains, which was commenced in December 1887, was vigorously pushed on during the year. Four shafts have been sunk and headings driven from them. The length of tunnel bored up to the 31st of March 1889 was 7,373 feet out of a total of 12,400 feet. Inclines are at work in conveying rails and materials over the range, pending the completion of the tunnel.

Amongst the principal events which occurred during the year may be noticed the transfer to the State of the Oudh and Rohilkhand Company's undertaking on 1st January 1889, and the Railway Conference which was held at Simla in September 1888.

The transactions of the guaranteed lines are illustrated by the following table. In calculating the interest the rupee is converted into sterling at contract rates :—

RAILWAY COMPANY.	Capital Expended to 31st December 1888.	Net Revenue for Year ended 31st December 1888.	Guaranteed Interest for Year to 31st December 1888.	Interest in excess of Revenue.	Revenue in excess of Interest.	Surplus Profits earned by Guaranteed Companies during Half-Years	
						Ended 30th June 1888.	Ended 31st December 1888.
	£.	£.	£.	£.	£.	£.	£.
Madras	10,576,377	322,817	522,393	199,576	—	—	—
South Indian	4,695,836	160,259	213,604	53,345	—	—	—
Great Indian Peninsula	24,987,725	1,996,404	1,184,396	—	811,508	725,213	71,369
Bombay, Baroda and Central India.	8,670,553	652,608	413,722	—	238,896	207,681	24,216
Oudh and Rohilkhand	9,176,842	301,601	354,243	52,642	—	—	—
TOTAL	58,107,333	3,433,689	2,688,848	—	744,841	932,894	95,585
						1,028,479	
Total for 1887	57,553,535	3,326,485	2,725,445	—	601,040	989,702	

* Of this, 341 miles are in abeyance.

GUARANTEED
RAILWAYS.

IRRIGATION.

The irrigation works of India, which come within the scope of operations of the Public Works Department, may be divided roughly into canals and tanks. The latter method of irrigation prevails chiefly in Southern India, though some large works of this class have been constructed by Government in Ajmere-Merwara. In some cases the supply of water is drawn from a neighbouring river, in others it is dependent on the local rainfall. These works are for the most part of native origin, and they possess the great advantage of moderate cost in construction and maintenance. But the most striking results of the efforts made by the British Government to systematize irrigation on a large scale are to be found in the great and costly perennial canals which have been constructed in the provinces, where the presence of the great rivers secures an unfailing supply of water. The success of these great works, as measured by the financial results, has been very different in different parts of India, though even where no adequate return on the capital sunk has been obtained, it is difficult to overrate the value of the security provided by this means against loss of life and property in times of drought. The causes of comparative financial success and failure are numerous. In some districts, as in Sind, the very existence of cultivation depends on the irrigation works; in others, as in a great part of Bengal, the rainfall in ordinary years is sufficient for the needs of the cultivator, and the demand for irrigation only becomes insistent with the recurrence of drought. In some provinces the practice of irrigation on a large scale is of ancient standing, while in others, as in Bombay, it is of comparatively recent introduction, and it is difficult to induce the cultivators to take the trouble and incur the expense of preparing their lands for the artificial supply of water. In some districts the large rivers which traverse the country offer an unfailing supply of water; in others, as in Bombay, the rivers are mostly not perennial, and irrigation is uncertain, and liable to fail when most needed.

It may be added that the different systems under which the revenue with which the irrigation systems are credited is collected has an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of occupiers', or direct, water-rates, and are not supplemented by "owners'" rates, as in some other provinces, nor, with few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided, in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North Western Provinces and Oudh, and in the Punjab, the direct water-rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue.

All the irrigation works under the control of the Public Works Department are divided into two classes, viz., "Major" and "Minor." The former class includes all the works which have been constructed from borrowed funds, and also the works known as "protective," whose cost has been met out of the annual grant for famine relief and insurance.

The cost of constructing, as well as of maintaining and working, minor works is met from the ordinary revenues of the year, and for the greater part of this class of works, distinct capital and revenue accounts are not kept.

The financial results obtained during 1887-88, from working those canals for which full accounts are kept, are given in the following statement:—

STATEMENT EXHIBITING THE MORAL AND MATERIAL

IRRIGATION.

	Capital Outlay to End of 1887-88 (Direct and Indirect).	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
Major Works	27,136,417	1,579,152	703,381	875,771	5.2	5,769,084
Minor Works	4,090,192	437,445	242,312	193,133	4.6	1,821,752
TOTAL for 1887-88	31,226,609	2,016,597	947,693	1,068,904	3.4	7,590,836
TOTAL for 1886-87	36,454,737	1,940,363	862,804	1,077,559	3.5	7,024,076

The following more detailed account of the irrigation operations is given under the heads of the different provinces in which the works are situated.

Ajmer-Merwara.

Irrigation in Rajputana is dependent on tanks and wells. The former class of irrigation works may be divided under two heads, the first including the old and the smaller description of new tanks, and the second comprising the large tanks which have been constructed in recent times. The latter class of works are mainly protective in character, and have not hitherto, as a whole, been remunerative. The tanks must be credited with the considerable improvement they have produced in raising the level of water in the wells in the vicinity.

Taking all the works together, the capital expended to the end of the year amounted to Rx. 164,628, and the net revenue collected during the year, to Rx. 6,924, yielding a percentage of 4.20 on the capital outlay. These results are not so favourable as in the preceding year, when the percentage of net revenue on capital was 5.5. There was a decrease in revenue, owing to the fact that the assessments of the rabi crop are collected in the year following that of the crop, and the rabi crop of 1886-87 was not good. The working expenses showed an increase, mainly attributable to the larger number of tanks repaired in 1887-88 than in the previous year.

On the other hand there was an increase both in the area irrigated and in the assessments of revenue.

The area benefited by the tanks, that is, the area protected as well as that actually irrigated, was 37,625 acres, as compared with 30,305 in the previous year, and the total estimated value of the crops irrigated was Rx. 78,029, as against Rx. 44,383 in 1886-87.

Baluchistan.

In Baluchistan efforts are being made to develop the resources of the country by the aid of irrigation. No irrigation systems are as yet in working order, but several projects are in hand, the chief of which are the Kushdil Khan Reservoir, and the Shebo Canal Scheme, which are estimated to cost, when completed, Rx. 62,341 and Rx. 59,332 respectively.

Bengal.

In Bengal the results of the year's operations were very unfavourable on all the large irrigation systems. Not one of the canals classed as "Major Works" yielded sufficient revenue to cover the working expenses. The minor works, however, the most important of which are navigation canals, showed an improvement on the results of the previous year.

The following table compares the general results of 1887-88 with those of the three preceding years:—

IRRIGATION.

YEAR.	Capital Outlay to End of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Revenue on Capital Outlay.	Area Irrigated.
	Rx.	Rx.	Rx.	Rx.		Acres.
1884-85	6,773,184	188,659	155,187	33,472	0.4	504,550
1885-86	6,881,318	211,928	145,921	66,007	0.9	480,078
1886-87	6,971,157	191,220	167,544	23,676	0.3	417,821
1887-88	7,061,409	175,768	192,589	16,821	—	494,968

The comparatively unfavourable nature of the financial returns for the year is to some extent attributable to a change in the method of calculating the establishment charges debitable to the canals, which vitiates comparison with previous years.

In Bengal a large portion of the receipts credited to the canals arise from navigation. Financially the most successful work under the administration of the Public Works Department is the system of Calcutta and Eastern Canals, constructed for navigation only, which yielded in 1887-88 a net revenue equivalent of 6.78 per cent. of the capital outlay.

The total amount of navigation revenue for the year was Rx. 92,148, showing an increase of Rx. 13,279 over the previous year's receipts. The total number of tons carried was 1,321,655, and the value of the goods carried was Rx. 9,089,798.

The capital expenditure for the year amounted to Rx. 55,797 for the major works (chiefly on the Orissa project), and Rx. 34,504 for minor works and navigation. The latter amount was almost entirely expended upon the Orissa Coast Canal, which is now approaching completion. Considerable importance attaches to this work as affording a line of water communication between Calcutta and Orissa, which would be of the greatest value in times of drought.

The total capital outlay on irrigation in the North West Provinces and Oudh for 1887-88 amounted to Rx. 170,809, of which Rx. 132,910 were expended upon the Kali Nadi Aqueduct at Nadrai, on the Lower Ganges Canal, with which good progress was made. The balance of expenditure was incurred chiefly in the provision of distributaries and drainage works on various canals. The total number of miles of channel in use in the province, including distributaries, drainage works, &c., was 9,712 at the close of the year, showing an increase of 98 miles over the length recorded at the end of 1886-87.

The results obtained from the working of the canals taken together show some improvement over those of the previous year, but as, owing to favourable rainfall, there was no great demand for irrigation, both the area of irrigation and the net revenue, are still below the average of preceding years.

YEAR.	Area Irrigated.	Capital Outlay to End of Year.	Net Revenue Assessed.	Percentage of Net Revenue on Capital.
	Acres.	Rx.	Rx.	
1883-84	2,297,674	6,909,298	506,914	7.33
1884-85	1,617,304	7,028,369	312,876	4.45
1885-86	1,709,676	7,514,959	354,462	4.72
1886-87	1,363,815	7,705,922	257,687	3.34
1887-88	1,517,288	7,876,731	301,356	3.83

The results shown in the foregoing table are mainly owing to the large systems of canals classed as major works, the capital expended on the minor works,

126 STATEMENT EXHIBITING THE MORAL AND MATERIAL

IRRIGATION.

works, and the net revenue derived from them being, relatively speaking unimportant.

The results of the working of the four major works are shown in the following table :—

CANAL.	Area Irrigated.	Mileage of Canal.	Capital Outlay to End of Year.	Net Assessed Revenue.	Percentage of Net Revenue on Capital.
	Acre.	Miles.	Rx.	Rx.	
Upper Ganges	601,904	437	2,823,968	151,523	5.37
Lower Ganges	470,942	564	3,149,555	54,498	1.73
Agra	124,557	169	904,158	22,280	2.46
Eastern Jumna	176,243	130	313,616	65,873	21.00
TOTAL - - -	1,373,646	1,240	7,191,297	294,174	4.09

* Main line and branches, excluding distributaries, drainage works, &c.

In addition to these the Betwa Canal, a "protective" work, which was opened in 1885-86, and the irrigation from which is as yet undeveloped, was worked at a loss of Rx. 2,328. The capital outlay on this canal to the end of the year was Rx. 410,024.

The total capital outlay on the minor works, including expenditure on surveys for new works, was Rx. 275,409, and the net revenue derived from them was Rx. 9,509. Navigation is practised on portions of the Ganges and Agra Canals. There was a large decrease, in comparison with the previous year in the traffic, both in merchandise and passengers, and in the revenue collected. The falling-off in the passenger traffic on the Ganges canals, which was very large, is attributed to the opening of the railway to Hardwar.

Punjab.

In the Punjab, as in Sind, the inundation canals form a special feature in the irrigation of the province. Owing to their small capital cost these canals often yield more favourable returns than the most costly perennial canals which require permanent headworks and weirs.

Taking all classes of works together, the following table gives the results of the year's operations as compared with those of the four preceding years.

The area of irrigation is again the largest on record, owing chiefly to the extension of irrigation from the new canals.

YEAR.	Capital Outlay to End of Year.	Area Irrigated.	Assessed Revenue.
	Rx.	Acre.	Rx.
1883-84 - - -	5,033,284	1,652,068	446,088
1884-85 - - -	5,304,742	1,614,288	397,648
1885-86 - - -	5,529,089	1,787,567	437,278
1886-87 - - -	5,746,169	1,950,640	468,806
1887-88 - - -	5,948,697	2,250,081	570,437

The irrigation systems of the Punjab now comprise 3,007 miles of canal and 4,593 miles of distributaries.

The financial results obtained in 1887-88 from the working of the seven systems classed as major works are shown in the following statement :—

IRRIGATION.

Works.	Capital Outlay.	Gross Revenue.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.
Perennial :	Rx.	Rx.	Rx.	Rx.	
Swat River - - - -	345,520	10,325	9,012	1,313	0.38
Western Jumna - - -	1,088,265	139,563	58,230	81,333	7.47
Bari Doab - - - -	1,615,491	163,493	52,899	110,594	6.84
Sirhind - - - -	2,318,618	69,864	36,188	33,676	1.45
Inundation :					
Lower Sohag and Para -	62,806	3,044	3,703	— 659	—
Sidhnai - - - -	73,499	14,276	4,100	10,176	13.84
Chenab - - - -	258,380	25	5,994	— 5,969	—
TOTAL - - - -	5,762,579	400,590	170,126	230,464	3.99

The figures given for the Sirhind Canal in the foregoing statement refer only to the portion of the canal lying within British territory. In addition to the capital outlay of 231 lakhs met from Imperial Funds, contributions of capital have been made by Native States to the amount of Rx. 1,823,949. The rapid development of irrigation from the Sirhind, Sidhnai, and Swat River Canals has been very satisfactory. The Chenab Canal was opened for the first time in July 1887.

The minor works of irrigation in the Punjab, for which capital and revenue accounts are kept, are all inundation canals. The net revenue for the year derived from these works was Rx. 18,895, equivalent to a percentage 10.18 on the capital expenditure of Rx. 186,115. The percentage of net revenue to capital earned by the Shahpur Inundation Canals was 60.34, and in the case of the Lower Sutlej and Chenab Canals it was no less than 171.43.

In the Punjab the method of assessing the canal revenue varies considerably. On the Swat River, Sirhind, Sidhnai, Chenab, Shahpur, and part of the Lower Sohag and Para Canals, a single charge is made for water supplied to irrigated lands. On most of the other systems, "occupiers" rates are assessed, and are supplemented by "owners" and "water-advantage" rates, or by a share of the land revenue. On the Indus, Mazaffargarh, and Lower Sutlej and Chenab Canals, no separate charge is made for water, but a share of the land revenue is credited to irrigation.

The value of the crops irrigated during the year was Rx. 6,846,630. A wheat crop of 783,189 acres was matured by irrigation, and there was a considerable increase in the area under sugar cane.

The capital outlay for the year amounted to Rx. 206,074 from imperial resources, in addition to Rx. 38,761 contributed by Native States. Nearly half this expenditure was upon the Sirhind Canal, which is now practically complete. About eight lakhs were expended on the Chenab Canal, with which considerable progress was made. Several new works are in contemplation. It is proposed to construct a branch of the Western Jumna Canal in the direction of Sirsa, and a perennial canal from the left bank of the Jhelum River. Surveys are also being made for an inundation canal from the left bank of the Chenab, near Chiniot.

Navigation is conducted on 243 miles of the Western Jumna Canal, and 186 miles of the Sirhind Canal. The net revenue derived from the traffic on the former canal was Rx. 3,839. On the Sirhind Canal there was a deficit of Rx. 669. There was a large increase in the receipts on both canals, and the value of goods carried was 24½ lakhs as compared with 11½ lakhs in the previous year.

In Burma there are no irrigation canals, properly so called, maintained by the Public Works Department.

IRRIGATION.

The figures given in the accounts under this province refer to the embankments of the Irrawaddy.

In Upper Burma endeavours have been made to discover what systems of irrigation are in working order, and how far repairs and improvements to tanks, channels, and weirs can be carried out at a small expenditure.

Madras.

In consequence of the favourable character of the season in Madras, there was an increase in the irrigation under nearly all the works, and a consequent increase in revenue. The financial results for the year from the works for which full accounts are kept, are compared with those of the two preceding years in the following table.

Year.	Capital. Outlay to End of Year.	Area Irrigated.	Revenue.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.
	Rx.	Acres.	Rx.	Rx.	Rx.	
1885-86	6,003,512	2,031,324	425,378	159,984	265,594	4.4
1886-87	6,158,674	2,050,181	437,484	133,314	304,170	4.9
1887-88	† 6,318,281	2,077,657	458,483	136,075	322,408	5.1

* Exclusive of expenditure on the Barur Tank and Rushikulya project.

† Exclusive of expenditure on the Rushikulya project.

The favourable results obtained from irrigation in Madras are to a very large extent due to the great deltaic systems of the Godavari, Krishna, and Cauvery. The percentages of net revenue on capital outlay earned by these three large irrigation systems were 11.28, 12.17, and 33.9 respectively.

Other irrigation systems which were worked at a profit were the Penner and Srivaikuntham anicut systems, and the Chembrambakam Tank, which yielded net profits at the rate of 6.9, 5.98, and 4.76 on their capital outlay respectively.

Besides the works referred to in the foregoing statement for which full accounts are kept, there is a large class of works in Madras for which capital accounts are not kept. The irrigation from these works in the year under review was 2,794,534 acres, against 2,688,228 acres in the preceding year, and the revenue derived from them exceeded the expenditure for the year by Rx. 759,916.

Irrigation revenue in Madras is derived almost exclusively from water rates collected with, and on most of the works consolidated with, the land revenue. The total revenue assessed on irrigated lands was Rx. 2,308,445, of which Rx. 588,247 were due to land, and Rx. 1,720,198 to irrigation.

The capital expenditure on irrigation for the year was nearly 18½ lakhs, of which about 5½ lakhs were expended on the Rushikulya and Pertyar projects which are under construction. Over two lakhs was spent on the improvement of the Buckingham Canal.

The Barur Tank project, which has been in hand since 1883, was brought into operation for the first time in 1887-88. The works consist of an anicut across the Ponnair River, from which a supply channel is taken to a series of tanks of which the Barur tank is by far the largest. The work will bring under irrigation an area of 5,430 acres in addition to old irrigation from the tanks before the scheme was undertaken.

Operations under the Tank Restoration Scheme were continued during the year. The number of works which had been investigated up to the close of the year, amounted to 928. The total area over which the operations had been conducted was 7,233 square miles. The estimated cost of the improvements suggested by the investigations was Rx. 114,379.

The length of navigable canals in the Madras Presidency is 1,189 miles. The number of passengers carried was 449,102, and the estimated value of the

the cargoes was Rx. 5,065,675. Except on the Godavari canals the traffic was worked at a loss.

In Gujerat and the Deccan, the irrigation results of 1887-88 show some advance on those of the previous year. There was an increase of 8 per cent. in the area irrigated by the class of works for which full accounts are kept, and an increase of 15 per cent. in the assessed revenue, while at the same time economies were effected in the working expenses.

For comparison with previous years the following figures are given:—

YEAR.	Area Irrigated.	Capital Outlay to End of Year.	Revenue (Assessed).
	Acres.	Rx.	Rx.
1883-84	32,962	1,511,068	24,424
1884-85	39,653	1,772,342	21,770
1885-86	59,450	2,184,097	28,323
1886-87	42,028	2,242,513	30,347
1887-88	46,187	2,300,078	34,951

In addition to these figures, which refer exclusively to those works for which capital and revenue accounts are kept, the class of works for which only revenue accounts are kept yielded a revenue of Rx. 52,345, and afforded irrigation to an area of 143,926 acres. The net revenue realised from these works was Rx. 34,536. The net revenue from the works for which full accounts are kept, was Rx. 9,906, equivalent to a percentage of 0.4 on the capital outlay.

There is little progress to record in the development of irrigation in the Deccan and Gujerat, and the results obtained from many of the works are very disappointing. Out of a list of 35 works for which full accounts are kept, no less than 17 failed to cover their working expenses in the year under review. The cultivated area which could derive advantage from these works is 480,021 acres, but on less than 1/4th of this area was any use made of the opportunities of irrigation offered. Perennial irrigation in the Deccan and Gujerat is dependent on storage of water, and the usefulness of several of the works is still much limited by the want of reservoirs.

In the class of major works the best financial result was obtained from the Mutha Canals, the most expensive work of this class, the net revenue from which yielded a percentage of a little more than 2 per cent. on the capital outlay of 62 lakhs expended on the works.

The principal crops irrigated were wheat, 9,122 acres, sugar cane 7,032 acres, and rice 5,811 acres. The two latter crops show a considerable improvement in area over previous years.

The capital expenditure during the year was Rx. 57,565, of which the greater part was upon the Nira Canal.

In Sind, even more than in the Punjab, irrigation is dependent on the annual rise of the waters of the Indus and its tributaries. The irrigation works are almost without exception inundation canals, and are for the most part old Native works which have been restored, improved, and maintained by the British Government.

The inundation of 1887 was unfavourable. The river rose late and fell early, and remained but one day at its maximum height. But in spite of this, the agricultural operations and the financial results of the year are the best on record.

IRRIGATION.

In the following table the area of cultivation and the total canal revenue of the year are compared with the corresponding results of five previous years.

YEAR.	Area of Cultivation	Total Canal Revenue.
	Acres.	Rx.
1882-83	1,673,293	333,884
1883-84	1,540,831	330,705
1884-85	1,783,173	377,316
1885-86	1,739,919	357,734
1886-87	1,814,650	377,798
1887-88	1,871,114	387,808

The larger portion of the irrigation revenue is derived from the class of works for which distinct capital and revenue accounts are not kept. The capital outlay on the works, for which full accounts are kept, amounted at the end of the year to Rx. 1,152,226, and the net assessed revenue from these works was equal to 7.89 per cent. on the capital expenditure.

The working results for 1887-88 of the four irrigation systems classed as major works are shown in the following statement :—

CANAL SYSTEM.	Capital Outlay to End of Year.	Assessed Revenue.	Working Expenses.	Net Revenue.	Percentage of Net Revenue on Capital Outlay.
	Rx.	Rx.	Rx.	Rx.	
Desert Canal	121,634	12,856	5,092	7,764	6.38
Unharwah	33,891	5,319	1,720	3,599	10.62
Begari	107,307	23,487	8,502	14,985	8.96
Eastern Nara Works	508,273	32,865	8,987	23,878	4.70
TOTAL	831,105	74,527	24,301	50,226	6.04

The capital outlay of the year was Rx. 19,384, the greater part of which was expended on the Eastern Nara Works.

The mileage of canals and river embankments was 5,287 and 610 miles respectively. The irrigation system of this province being dependent on the inundation of the river, the proper maintenance of the bunds which have been constructed along the banks, has great importance, both in checking the tendency of the river to erode its banks, and in maintaining and regulating the supply of water. A sum of Rx. 14,371 was expended on the extension and improvement of the embankments, and Rx. 18,274 on their maintenance and repair.

BUILDINGS AND ROADS.

BUILDINGS AND
ROADS, &c.
General.

The total expenditure on public works in India, other than railways and irrigation works, in 1887-88, exclusive of sums charged under the head of Special Defence Works, was defrayed by imperial, provincial, and local funds in the following proportions :—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	GRAND TOTAL.
	Rx.	Rx.	Rx.	Rx.	£.	Rx.	Rx.
Military Works -	1,222,763	-	-	1,222,763	6,546	2,751	1,232,060
Civil Works -	893,026	1,538,667	1,461,410	4,087,103	92,864	33,022	4,218,989
TOTAL, 1887-88 -	2,115,789	1,732,667	1,461,410	5,309,866	99,410	41,773	5,451,049
TOTAL, 1886-87 -	1,673,685	1,982,497	1,424,507	5,080,689	87,989	33,089	5,201,767

BUILDINGS AND
ROADS, &c.

* Including the further sum of Rx. 456,017 brought to account under the head of Special Defence Works, the gross expenditure on Military and Defence Works during 1887-88 was Rx. 1,688,077, or, deducting Rx. 40,418 received on account of Military Works, a net expenditure of Rx. 1,647,654. The corresponding figure in 1886-87 was Rx. 1,198,880.

The Budget grant for Ordinary Military Works for the year 1887-88 was Rx. 646,190 which included a sum of Rx. 5,630 for expenditure in England. The total outlay amounted to Rx. 605,698, being a lapse on Estimate of Rx. 40,491.

The outlay on original works was Rx. 310,376, while Rx. 137,286 were spent on repairs. The cost of Establishment was Rx. 123,555. An outlay of Rx. 47,795 was incurred on account of accommodation for British Troops at Quetta; additional accommodation was provided for British Troops at Jhansi at a cost of Rx. 15,697. At Peshawur Rx. 24,224 were spent in the construction of new barracks and in improvements. An unusual amount of work was carried out for the Ordnance Department in connection with the extension of the factories at Cossipore and Dum Dum, the total outlay being Rx. 24,854. The forts at Lucknow, Benares, Loralai, Futtehghurh and Delhi have been improved. The new cart road from Pabbi to Chapri has been practically completed at a total cost of Rx. 27,545. On the Bolan road a bridge over the Bolan river at Kundilani was completed early in the year. This important road is now complete.

The Special Defence Works may be comprised under the heads of—

Frontier and
Coast Defence

(a.) Frontier and Inland Defences.

(b.) Communications, i.e. Roads for Military Purposes.

(c.) Seaward Defences of Aden, Bombay, Karachi, Calcutta and Rangoon.

The works on the North Western Frontier comprised roads in Peshin, and giving access to that district. The most important of these were completed, the others were in progress. The survey for the Quetta-Kach line of railway was in progress. The defensive works, i.e., batteries, &c., and necessary buildings in Peshin and at Quetta, were generally well advanced. On the Khyber line, the defensible serai which it was decided to build at Lundi Kotal was in hand. Surveys for the works for the defence of the crossings of the Indus at Attock and Sukkur were in progress. With regard to works more within the frontier, the extension of the arsenal at Rawul Pindi was being carried out, and at Mooltan surveys for a defensible position were being made. A project for a block house to protect the railway bridge at Bhawalpore was under preparation.

During the year progress was made with the defensive works at Bombay, Karachi, the Hooghly, Rangoon, and Aden. Some batteries were completed as far as was practicable, and received provisional armaments, but as none of the new types of heavy guns which are to form the permanent armaments had been sent out, none of the batteries were absolutely completed. Progress was made with the new lighthouse at Karachi rendered necessary by the construction of a new battery on or close to the site of the old one.

BUILDINGS AND
ROADS: MILITARY
WORKS.

The expenditure in connection with the special defence works during 1887-88, was as under:—

	Rx.
Frontier and Island Defences -	116,266
Communications -	118,053
Coast and Port Defences :	
Aden - - - - -	17,665
Bombay - - - - -	17,119
Karachi - - - - -	38,012
Rangoon - - - - -	11,613
Hooghly - - - - -	6,584
Armaments - - - - -	91,019
Establishment, plant, &c. - - - -	106,368
	552,699
Deduct,—Moiety of expenditure on Aden defences, recovered from the Imperial Government - - - - -	40,325
TOTAL - - - - -	Rx. 512,374

CIVIL WORKS.

The expenditure on civil works falls under the three heads of Buildings, Communications, and Miscellaneous Works of Public Improvement.

The following statement shows the distribution of the total outlay in India on civil works for 1887-88 among the different provinces. The outlay from imperial and provincial funds is almost entirely in the hands of the Public Works Department, but the greater part of the expenditure from local funds is managed by the Civil Department, and is not under the control of the Public Works Department. The outlay from local funds administered by officers of the Civil Department is mainly directed to the construction and maintenance of roads.

EXPENDITURE in India on CIVIL WORKS in 1887-88.

	India, General and Political.	Bengal.	Assam.	North West Provinces and Oudh.	Punjab.	Central Provinces.	Burmah		Madras.	Bombay.	GRAND TOTAL.
							Upper.	Lower.			
Expenditure by Public Works Department:-	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
• Civil Buildings - - -	94,169	178,404	11,435	128,559	81,895	24,280	90,440	30,040	86,838	165,822	886,072
• Communications - - -	105,799	72,350	96,686	269,995	320,315	67,433	168,705	59,067	54,333	210,901	1,434,494
• Miscellaneous Public Improvements.	2,931	26,575	1,437	3,843	20,423	1,332	40,665	12,054	6,610	20,466	136,336
TOTAL WORKS AND REPAIRS - -	202,899	277,329	109,498	397,397	422,633	93,045	299,610	101,161	147,781	408,249	2,457,502
Establishment - - -	77,179	84,842	39,466	128,234	84,958	33,064	29,316	42,459	63,991	106,367	682,777
Tools and Plant - - -	4,935	2,440	1,558	3,106	1,280	2,158	4,917	846	5,202	4,380	29,982
Profit and Loss, Suspense, &c. -	— 19,636	— 25,059	— 1,938	— 371	— 4,695	2	6,978	— 2,084	1,113	— 1,130	— 47,220
TOTAL EXPENDITURE BY PUBLIC WORKS DEPARTMENT - - -	204,477	339,452	148,584	527,966	504,176	138,269	340,821	142,873	218,057	215,516	3,130,041
Expenditure by Civil Departments -	2,023	367,646	2,807	27,961	4,541	95,740	2,172	7,994	384,497	131,981	957,062
TOTAL EXPENDITURE IN INDIA -	266,500	707,093	151,391	555,927	508,717	154,009	342,993	150,867	602,554	647,547	4,087,103

BUILDINGS AND
ROADS: CIVIL
WORKS.

134 STATEMENT EXHIBITING THE MORAL AND MATERIAL

BUILDINGS AND
ROADS: CIVIL
WORKS.

The expenditure in England consists to a great extent of furlough and absentee pay and allowances of military and civil officers of the Public Works Department. It also includes the expenses of the Royal Indian Engineering College at Cooper's Hill. The receipts from this institution in 1887-88 were Rs. 5,601 L., and the expenses connected with it were Rs. 26,672 L.

The new Viceregal Residence at Simla, which has been under construction since September 1885, was approaching completion at the end of the year under review, and finished in the autumn of 1888.

Berar.

The expenditure on Civil and Military Works in Berar for 1887-88, and the previous year, are shown in the following table.

	Military Works.	Civil Works.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87	22,440	1,899	100,060	25,361	127,320
1887-88	35,619	2,815	119,352	24,425	146,592

No works of any special importance were undertaken during the year, but satisfactory progress was made with various revenue, judicial, jail, police, and educational structures. More than half of the provincial expenditure was devoted to the construction and improvement of roads.

Under the head of Miscellaneous Improvements the project for improving the water supply of the Civil Station of Amraoti, was nearly completed.

Bengal.

A comparison of the expenditure in Bengal for 1887-88, with the expenditure for the previous year, is given in the following statement:—

YEAR.	Military Works.	Civil Works.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87	5,398	51,025	306,205	371,958	819,189
1887-88	2,349	62,218	292,681	352,199	707,098

Under the head of Imperial Expenditure there are no works of any magnitude to record. The largest item of provincial expenditure is Civil Buildings, the outlay on roads in this province being for the most part met by the district road funds, chiefly in districts subject to the operations of the Bengal Local Self-Government Act. Among the works under construction from Provincial Funds may be mentioned the new collectorate building at Khoolna, two sub-divisional residences at Jehanabad and Rajbari, a circuit-house at Pubna, and several munsifs' courts. A munsifs' court at Oolooberiah, a combined Sub-divisional Court and Munsifi at Brahmanberiah, the circuit-house at Khoolna, and the Civil Court building at Mymensingh were completed.

The outlay on roads was for the most part confined to the repair and improvement of existing lines of communication.

Under the head of Miscellaneous Improvements the Town Hall at Mymensingh, and the waterworks at Bhagulpore were completed.

Projects

Projects for the drainage of Durbhunga and Chupra were under preparation. Progress was made with the new lighthouse on Shortt's Island, but work was much delayed by a cyclone. Several important public buildings at Hookeytollah were completed, and the repairing of the Chandbali revetment, injured by the cyclone of September 1885, was finished. BUILDINGS AND
ROADS: CIVIL
WORKS.

By reducing the price of pig-iron the operations of the Barrakur Iron-works were placed in a satisfactory position. All the accumulated stock was sold, and the extension of operations will reduce the cost of production to a figure which will render low-selling prices remunerative.

The encroachment of the Ganges at Goalundo necessitated the removal of the Public Works Department buildings and railway station to Rajbari, and considerable damage was occasioned by floods during the year.

The construction of the new docks at Kidderpore is in the hands of the Calcutta Port Trust. The reports show that these works are progressing satisfactorily. The total expenditure incurred upon them up to 31st March 1888 was Rx. 845,853. In connection with the dock works, the brick-making operations at the Akra factory were carried on vigorously, and the out-turn was over the average of previous years.

In Assam want of funds was the cause of diminished activity in the construction of public works, the outlay on civil works falling short of the previous year's expenditure by nearly 1½ lakhs of rupees. This saving was effected at the expense of the allotment for new works, and there was no material decrease of expenditure upon maintenance and repairs. Assam.

No civil buildings of special interest were under construction during the year. The outlay on communications was chiefly in the hands of the Local Boards, and the greater part of the funds administered by them under this head was absorbed by the upkeep and improvement of the Assam Trunk Road and the Northern Trunk Road. Good progress was made with the Companyganj-Salutikar Road, and with the bridges on the Gauhati and Shillong Cart Road. Among miscellaneous public improvements the scheme for supplying the town of Gauhati with good drinking water was finally completed during the year, and a survey was undertaken with a view to framing a scheme for the water-supply of Sylhet.

In the North West Provinces and Oudh there was a reduction in the expenditure on buildings and roads for 1887-88 as compared with the outlay in the previous year. The expenditure under this head for the two years is shown in the following statement:— North West
Provinces and
Oudh.

YEAR.	Military Works.	Civil Works.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87	10,697	21,734	286,200	258,166	566,100
1887-88	12,225	16,106	293,690	246,131	555,927

The chief item of expenditure under the head of Military Works was the outlay on the road between Manibagh and Ranikhet. There were no buildings of any special importance under construction from Imperial Funds. The expenditure on provincial buildings was chiefly under the heads of Administration, Jails, and Police. Under the first head may be mentioned the new District Court building at Allahabad, which was completed at a cost of Rx. 9,955. About two lakhs of rupees was expended upon jails. Among the more important works in hand were the Central Prison at Bareilly, and the remodelling of the district jails at Hardoi and Lakhimpur, the latter of which was completed during the year. Some buildings of the Secretariat

BUILDINGS AND
ROADS: CIVIL
WORKS:

Secretariat Office at Allahabad were destroyed by fire in November 1887 and an expenditure of Rx. 4,214 was incurred during the year in their restoration.

The expenditure on communications was about two lakhs of rupees from provincial funds; and about 5½ lakhs from local funds, and many useful lines of road and bridges were completed or in progress during the year. Among others the steel lattice girder bridge over the Kosi River, which has cost upwards of Rx. 10,000, was erected.

The miscellaneous public works under the control of the provincial and local authorities, included the restoration of lakes and tanks in various districts, the erection of a town hall at Sitapur, the management of the Government foundry at Roorkee, and of the Ganges River works, tolls, ferries and staging, and the provision of accommodation for travellers.

An expenditure of Rx. 18,525 was incurred on works of public utility by private individuals at their own cost. These works were chiefly wells and tanks, but also included various minor buildings, roads and bridges, and a clock tower in Kumaon.

An important change was introduced during the year in the agency by which local works are carried out. Henceforward all the works in a district, whether Imperial, Provincial or Local, will be executed by the agency of the Provincial Public Works Department. This change it is expected, while not diminishing the responsibility of the District Boards, nor their power of initiation, will ensure more thorough professional supervision of the works, and lessen the cost of establishments.

Punjab.

The expenditure in the Punjab, under the head of Buildings and Roads for 1887-88, was considerably larger than in the previous year. This was chiefly due to a largely increased outlay on the North Western Frontier Roads, which are being constructed from Imperial funds. The provincial expenditure was smaller than in 1886-87. The following statement compares the expenditure in India for the two years:—

YEAR.	Military Works.	CIVIL WORKS.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87 - - - - -	22,977	85,737	258,074	83,634	427,445
1887-88 - - - - -	27,934	176,033	235,247	96,837	508,717

Good progress was made with the Kushalgarh-Dera Ismail Khan and the Dera Ghazi Khan-Peshin Frontier Roads. On the former road work was advancing on the Kurram Bridge, which will consist of 15 spans of girders, 100 feet each in the clear, and preparations were made for taking in hand the bridge over the Gambila River.

Among civil buildings may be mentioned the re-roofing of the Diwan Khás at Delhi, and the new Chief Court at Lahore, which was practically finished during the year. The new Training College at Lahore, the Court House at Rawalpindi, and the Normal Schools at Jullundur and Rawalpindi were also completed, and progress was made with the Aitchison College, and with the construction of buildings connected with the Lahore Medical School and the Lady Aitchison Hospital.

The total length of metalled and un-metalled roads in the charge of the Public Works Department was 2,824 miles, out of which 190 miles received renewal of metal. The expenditure on un-metalled roads was rather more than four lakhs of rupees. Good progress was made with the Murree-Kohála.

Nohála road; the repairs to the grand trunk road from Delhi to Pesháwar were carried out as usual, and various railway feeder roads were completed. The numerous boat bridges over the Jumna and the Indus and its various tributaries, were maintained efficiently, and yielded a net income of Rx. 19,469.

BUILDINGS AND
ROADS: CIVIL
WORKS.

Among miscellaneous public improvements the Victoria Town Hall at Dera Ismaíl Khan, and the Simla Town Hall, were completed. The Rawul-pindi Water Supply Scheme was finished during the year, and drainage works were carried out in Gujránwála, Siámkot, Peshawur, and Delhi.

The expenditure in India in the buildings and roads branch in the Central Provinces for 1887-88 is compared with that of the previous year in the following statement:—

YEAR.	Military Works.	Civil Works.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87	14,430	2,107	130,054	21,339	162,500
1887-88	7,663	2,238	126,665	25,100	154,009

Good progress was made with the Divisional and District Court House at Jubbulpore. No other building of any importance was under construction. The efforts of the Department were chiefly directed to the improvement of the communications. A complete scheme for the systematic improvement of the district roads has been drawn up, having for its object to connect every important mart and village to the tahsil or district head-quarters and to the railway. The resources of the province are too small to allow of the maintenance of a general system of first-class metalled roads, and the object aimed at has been, therefore, to provide for the construction and maintenance of a system of improved fair-weather roads which will accommodate the traffic during the cold and dry seasons.

The establishment and organisation of the Warora and Umeriah Collieries, which are under the supervision of the Public Works Department, received thorough revision, by which it is hoped the working results will be much improved. The out-turn in 1887 from the former colliery was 113,073 tons, and the net earnings were equal to a per-centage 6·8 per cent. on the capital outlay, a result which compares unfavourably with the profits of the previous year, which were 10·6 per cent. on the outlay. On the other hand, the Umeriah Colliery improved its position, and produced a small profit in place of the loss which resulted from the previous year's working. The out-turn from this colliery was 25,548 tons.

In Burma political conditions have not been favourable to progress in the extension of works of public improvement. In Lower Burma no civil works of any importance were undertaken. Under the head of Civil Buildings extensions of the jails at Bassein, Ma-ubin, Toungoo, Shwégyin, and Thayetmyó, were carried out during the year. The extension of road communication was hindered by the want of funds, and the work undertaken was confined to the repairs of existing roads and bridges. Water communications are a special feature in the public works of Burma, entailing annual expenditure in the maintenance of canals and in dredging. A commencement was made with the rebuilding of the Abya Escape on the Pegu-Sittang Canal at an estimated cost of Rx. 23,808, and some outlay was incurred in maintaining navigation on the Irrawaddy, and on embankments.

In Upper Burma the outlay for the year on Military Works nearly equalled the expenditure on Civil Works. The principal Civil Buildings were jails, and the buildings required for the large police force

BUILDINGS AND
ROADS: CIVIL
WORKS.

force in the province, but progress was also made with the erection of Court Houses. Under the head of Communications good progress was made during the year on the important lines of road which are being constructed in the Upper Province, among which may be mentioned the road between Thabeikkyin and Bernardmyo, 60 miles, the road from Tigaying to Kawlin, 36 miles long, in the Myadaung district, the road from Kyaukmyaung to Shweba and Yen, 40 miles, the road from Mandalay to Maymyo, 44 miles, the road between Sittang and Tamu in the Kubo Valley, the road between Mōnywa and Myinmu, the road from Myingyan to Mahlaing, Meiktila, Hlaingdet, and the Shan States plateau to Fort Stedman, a distance of 172 miles, the road between Miyuanggyi and Taungdwingyi, 38 miles, and the road between Minbu and Ngape, 34 miles. An important work carried out by the Public Works Department was the completion of the Mandalay Town Embankment at a cost of 43,800 l.

Madras.

The expenditure in Madras shows a considerable falling off from the outlay of the previous year :-

YEAR.	Military Works.	Civil Works.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87	56,721	4,339	238,224	300,808	608,271
1887-88	52,831	2,222	202,759	397,573	602,554

The chief public work in the town of Madras is the harbour, which is still in process of restoration. The expenditure for the year was Rx. 39,271, and the total cost of the restoration works was Rx. 242,493 against the sanctioned estimate of Rx. 459,005. During the year a committee appointed by the Secretary of State met to consider the important question of the position of the entrance, and finally recommended the north-eastern corner of the harbour as the best position.

Among the civil buildings completed during the year may be mentioned the Breek's Memorial School at Ootacamund, and the restoration of Tirumal Naick's Palace at Madura, which has been adapted to the uses of the public service.

In Madras sites were selected for the new buildings sanctioned for the High Court and for the Presidency Magistrate's Court House.

In the Madras Presidency the road communications are now almost entirely in the hands of the Local Fund Boards. In the Wynnad the improvements to the Calicut-Vayitri road were nearly completed, and progress was made with various bridges. Work was also done on the Potinghi-Koraput road, the road from Kullar to Gúdalur, and the road from Cumbum to the foot of the Gúdalur-Peermaad Ghât. Surveys were made for connecting Koraput with the Central Provinces.

Among miscellaneous works may be noticed the schemes for the drainage and water supply of Negapatam, and for improving the water supply of Bangalore, which were under consideration during the year. Progress was made with the Ootacamund Water Supply Scheme, on which nearly 1½ lakhs has now been expended. The Gopalpur Pier was completed at a cost of 3 lakhs. The Artesian borings in the Kortalayar Valley were continued, but without success.

There was a considerable decrease in the expenditure of the Public Works Department in Bombay on Civil Works as compared with that of the previous year :-

BUILDINGS AND
ROADS: CIVIL
WORKS.
Bombay
(including Sind).

YEAR.	Military Works.	Civil Works.			
		Imperial.	Provincial.	Local.	TOTAL.
	Rx.	Rx.	Rx.	Rx.	Rx.
1886-87	140,263*	25,531	49,469	206,288	711,288
1887-88	82,251*	28,418	407,867	212,225	648,610

* Excluding "Special Defence Works."

Among the more important buildings in the hands of the Public Works Department may be mentioned the extension of the Central Telegraph Office at Bombay, which was completed during the year at a total cost of nearly 1½ lakhs; the construction of the State and Alienation Record Office at Poona, and the erection of the Police Magistrates' Courts, and the Wilson College in Bombay, were in progress; the new building originally intended for the Government Central Press, but subsequently assigned to the Elphinstone College, was nearly completed.

Good progress was made during the year with the construction of feeder roads to supplement the large extension of railway communication which has taken place of late years in the Deccan. Other important roads were also in progress or completed in the Nāsik, Thānā, Ahmedabad, Kaira, and Pānch Mahāls districts. An important bridge over the Indrāyani at Indori was completed, and another on the Dhādhar, estimated to cost 1½ lakhs, was commenced.

The miscellaneous public improvements include the Junnar and Talegaon Water Supply Works, which were completed during the year, and surveys for various other water-supply projects which were in progress. The improvements in the town of Bijāpur, noticed in previous Reports, were continued.

In the year under review administrative changes were effected in the Bombay Public Works Department, which promise to result in a large saving in annual expenditure and liability for pension.

In several districts it has been found possible to amalgamate the separate establishments hitherto maintained for irrigation with the establishment employed on other public works. Large reductions in temporary establishment were effected, and changes were introduced in the constitution of the subordinate ranks of the Department, and in the mode of admission thereto. Efforts are also being made to secure greater efficiency and promptitude in the audit of Public Works Account, and a new system of audit is under trial.

The growth of the City of Bombay has been attracting the attention of Government, and at the close of last year an influential Committee was appointed to consider the subject with reference to the public health and convenience and the interests of the increasing industries. The recommendations of this Committee are now under the consideration of the Government. Steps were also taken to put a stop to further alienations of the valuable building sites belonging to Government in the Island of Bombay.

Both of the large harbours of the Bombay Presidency are now under the management of Port Trusts. The operations of the Bombay Port Trust are of considerable magnitude. Their revenue in 1887-88 was

0.85.

Rx. 400,310,

BUILDINGS AND
ROADS: CIVIL
WORKS.

Rx. 400,310, exceeding that of the previous year by Rx. 3,350, notwithstanding reductions in dock and wharf dues, and their expenditure was Rx. 367,999. The total capital expenditure of the Trust up to the end of the year was Rx. 4,863,573.

The Prince's Dock, the most important of the works in the hands of the Trust, yielded a net revenue during the year equivalent to 4·8 on the capital expended on it. The Victoria Dock was opened during the year, and a commencement was made with the filling up of the Apollo basin, which has been found useless for traffic, and will, when filled in, supply some of the finest building sites in Bombay. The Trust are contemplating the excavation of a graving dock adjacent to the Prince's Dock, and have also granted an important concession to Mr. Bowack to construct one or more graving docks in the harbour off Butcher's Island.

The scheme for the Government dry dock did not make material progress during the year, the question of its cost and dimensions being still under discussion.

The operations controlled by the Karachi Port Trust, which was established at the beginning of 1887-88, though not of such magnitude as those of the Bombay Trust, are of special importance from an Imperial point of view, as the port is the terminus of the north-western frontier system of railways. The revenue and expenditure for the year were Rx. 46,369 and Rx. 29,163. With the aid of contributions and loans from Government, efforts are being made to improve the harbour and extend the accommodation for ships. Considerable progress was made during the year with dredging operations and the construction of the new wharves, part of which were opened for traffic. The removal of deep water point was commenced, and progress was made with the extension of the East Groyne.

XII.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

THE receipts and charges of the Post Office for the last two years, as shown in the Finance and Revenue Accounts, are given in the following statement:—

YEAR.	Receipts.	Expenditure.	Net Charge.
	Rx.	Rx.	Rx.
1886-87 - - -	1,157,878	1,353,877	195,999
1887-88 - - -	1,244,196	1,375,215	161,019

The net charge of Rx. 161,019 includes Rx. 115,382 for District Post establishment, but the Post Office is not credited with the receipts from the local cesses for the District Post, or the grants from Imperial or Provincial revenues under that head, amounting to Rx. 73,483 and Rx. 26,477 respectively. The Post Office also acts as an auxiliary of the Telegraph Department, by receiving telegrams at all post offices where this can be done with advantage. It may further be observed that the rates of postage charged on official correspondence are very low, and that in 1887-88 service articles were, in Upper Burma, carried entirely free of charge, owing to the difficulties in the way of providing regular supplies of service postage stamps. On the 1st of February 1888 the new contract with the Peninsular and Oriental Steam Navigation Company came into force, under which the subsidy to the

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1885-86 - -	6,349	9,056	4,253	62,487
1886-87 - -	7,097	9,386	4,465	64,056
1887-88 - -	7,263	9,704	4,725	66,960
Increase in 1887-88 over 1886-87 -	166	318	270	2,905

company is reduced, and the time for the transit of the mails from London to Bombay is fixed at 16 days.

The extent of the sphere of the operations of the Post Office, and its development during the last three years, are shown in the table in the margin.

YEAR.	Letters (including Postcards).	Newspapers.	Parcels.	Book and Pattern Packets.	Total.
	No.	No.	No.	No.	No.
1886-87 - -	225,811,265	21,606,697	1,579,904	5,751,378	254,749,244
1887-88 - -	238,692,376	21,832,775	1,621,418	6,739,658	268,886,227
Increase -	12,881,111	226,078	41,514	987,780	14,136,483

The general correspondence returns for 1887-88, of which a summary is given in the margin, show an increase of upwards of 14 millions of articles carried by post as compared with 1886-87. Of this increase, eight millions were due to postcards.

One hundred and forty-four thousand nine hundred and sixty-nine parcels were exchanged with the United Kingdom. Of these, 47,791 were transmitted by the Peninsular and Oriental Steam Navigation Company (viz., 45,216 to India and 1,875 from India), being an increase of about 5 per cent. on the figures for 1886-87, in which year the numbers decreased by about 35 per cent. owing to the introduction of the Parcel Post. Most of these were book parcels, which are carried by the company at a reduced rate of sixpence per pound under a special arrangement made by the Indian Post Office.

POST OFFICE.

Office some years ago, and the majority of the book parcels were received from the agents of a patent medicine, no less than 3,000 of these circulars having arrived at Bombay by one mail alone. The parcels transmitted to and from the United Kingdom by the Parcel Post increased by nearly 13 per cent. In India, where the Post Office now has to meet the competition of the railways, there was an actual decrease in the number of ordinary parcels and insured parcels, and the increase of 2½ per cent. on the total transactions was entirely due to an expansion of the value-payable parcel business, the number of articles sent by the value-payable parcel post having increased 30 per cent., the value declared for realization by 29 per cent., and the amount of commission by 20 per cent. Out of the total number of value-payable articles posted throughout India, nearly half were posted in Calcutta, and half the total declared value of the whole number of articles was paid to tradesmen in Calcutta. During the last two years the business in insured letters has increased, and the amount of insurance fees paid during the year under report is the highest yet reached, viz., Rx. 18,349. The amount paid as compensation was Rx. 2,028, which includes Rx. 1,122 for losses by highway robbery in Native States, from which this sum will be recovered. As the great majority of the insured letters contained currency notes, it is probable that these letters will decrease with the progress of the money order system. The number and value of money orders issued in India increased from 4,821,117 and Rx. 10,684,915 in 1886-87, to 5,512,395 and Rx. 11,844,357 in 1887-88; and the commission realized from Rx. 133,782 to Rx. 149,438. Year by year the average value of the money orders issued has declined. It is now Rs. 21. 7. 9., and more than half the entire money order work is in connection with orders not exceeding Rs. 10 in amount. The adaptation of the money order system to the payment of land revenue and cesses, has proved a success in the North-Western Provinces and Oudh, and in the Lower Provinces of Bengal. The further extension of the system is being carried out; but it is considered unsuitable for the Madras and Bombay Presidencies, in which the revenue is generally paid by the ryots to the headman of the village. The arrangements made last year to enable the agricultural population in the North-Western Provinces and Oudh to use money orders for the remittance of small sums due on account of rent by tenants to landowners, have been found to meet a want, and the system will be introduced into the Lower Provinces of Bengal.

The effect of the continued fall in the rate of exchange in checking remittances from India to the United Kingdom was very apparent, the amount of money orders issued by the former country for payment in the latter having been only 136,735 £, as compared with 143,955 £ in 1886-87, and 175,524 £ in 1885-86.

The deposits in the Post Office Savings Banks during 1887-88 were Rx. 570,000 more than in 1886-87, i.e., leaving out of consideration the amount of deposits transferred from the District Savings Banks when they were closed at the commencement of 1886-87. The balance at the end of 1887-88 was Rx. 5,048,000 (there being Rx. 4,223,252 at the credit of natives of India and Rx. 825,584 at that of Europeans and Eurasians), as compared with Rx. 4,250,000 at the close of 1886-87. There were 261,157 depositors, of whom 87 per cent. were natives of India, but there is still no sign of the agricultural classes making use of the opportunities for thrift afforded by those banks. Nearly half the depositors belong to the professional class, in which are included Government and municipal servants of all kinds. In 1886-87 the power of purchasing Government securities through the Post Office was limited to *bona fide* depositors in the Savings Banks, and the effect of this limitation was fully felt only in 1887-88, in which year the total amount of such investments was Rx. 33,330, as compared with Rx. 44,060 in 1886-87. The total number of transactions (purchases and sales) was 459, of which 277 related to securities not exceeding Rs. 1,000 in value, and only 27 were for amounts in excess of Rs. 2,000. It is found that whenever Government 4 per cent. paper reaches par, depositors prefer not to run the risk of investing therein, but choose the safer way of lodging their money in the Post Office Savings Banks. Whenever Government paper goes down, investors come forward to obtain a higher rate of interest than that allowed by those banks, viz., 3½ per cent.

TELEGRAPH DEPARTMENT.

TELEGRAPH
DEPARTMENT.

The chief event in the record of the Indian Telegraph Department for the year 1887-88 was the transfer to the Department, on the 1st February 1888, of the Indo-European Government line and cables, extending from Karachi to Teheran, which had formerly been administered by a Director-in-Chief in London. For the sake of comparison with previous years, however, the Indo-European portion of the Telegraph System will, as formerly, be dealt with separately.

The capital expenditure for the year in the Indian Telegraph Department was Rx. 234,953, and the total capital expenditure up to the end of the year, excluding the cost of experimental and abandoned lines, and outlay incurred upon lines and offices not now working, was Rx. 4,277,758.

During the year 6,648 miles of wire and cable were constructed, including 1,634 miles specially constructed for, and rented to, railways.

The most notable additions to the departmental lines were an additional wire from Hyderabad (Deccan) to Bezwada, a wire from Moultan *via* Sukkur and Sibi to Quetta, and a line connecting Assam with Upper Burma, *via* Manipur and the Kubo Valley.

The extension of the Telegraph System by the opening of new branches and offices has tended to congest the traffic on the trunk lines, and it is probable that in the immediate future the money available for capital expenditure will be applied rather to strengthening the main lines of communication than to further extension.

A general view of the progress made by the Department in 1887-88 will be obtained from the following statement:—

Year.	Number of Signal Offices at end of Year.	Miles of Line at end of Year.	Miles of Wire and Cable at end of Year.	Number of Messages during Year.	Revenue.	Expenditure on Revenue Account.	Surplus on Revenue Account.	Total Outlay on Capital Account to end of Year.	Percentage of Net Revenue on Capital Outlay.	Capital Outlay during Year.	Net Charge on Imperial Revenues.
					Rx.	Rx.	Rx.	Rx.		Rx.	Rx.
1886-87	699	30,035	87,087	2,513,269	597,613	412,187	185,426	4,042,803	4.58	211,127	25,701
1887-88	745	31,894	93,743	2,802,299	662,886	429,224	233,662	4,277,758	5.46	234,955	1,313

With reference to the last column of this statement it is necessary to explain that the whole of the expenditure on the Telegraph Department, whether it be of the nature of capital outlay or of expenditure incurred in maintenance and working, is met from the general revenues of India. Out of the total 93,743 miles of wire existing at the end of 1887-88, 32,959 miles were specially provided for the exclusive use of the State and Guaranteed Railways.

The rapid improvement in late years in the financial position of the Department has been due not only to the large increase in the receipts, but also to the relatively small increase in the working expenses. Thus, the cost of line maintenance, which in 1883-84 was Rs. 17.0 per mile of wire, had fallen in 1887-88 to Rs. 12.89. Similarly, the cost of signalling fell from Rs. 1.4 to Rs. 1.1 per message dealt with.

It will be seen that the net revenue of the Department for the year, which is the largest yet recorded, yielded a return of 5.46 per cent. on the capital outlay. But in estimating how far this large increase in the net profits is a sign of a healthy normal development of the business of the Department, it is necessary to examine the sources from which the revenue is derived. The 66 lakhs of revenue with which the Department is credited for the year comprises 17 lakhs from State messages, 34.6 lakhs from private messages, 11.4 lakhs from State railways, and about three lakhs from other sources.

144 STATEMENT EXHIBITING THE MORAL AND MATERIAL

TELEGRAPH
DEPARTMENT.

The receipts from State messages were, as in the preceding year, abnormally high, owing to the disturbed political condition in Upper Burmah. It is calculated that when a normal state of affairs is established in Burmah, the Inland State message revenue should fall to about seven or eight lakhs of rupees yearly, and that if this were the case in the year under review, the net revenue would be reduced from 5½ to a little over 3 per cent. on the capital invested. The value of the private traffic exceeds that of the previous year by 3.3 lakhs.

The growth of the inland traffic from private messages will be seen from the following figures:—

	Rx.
1883-84 - - - - -	29,124
1884-85 - - - - -	88,879
1885-86 - - - - -	1,33,532
1886-87 - - - - -	1,81,779
1887-88 - - - - -	1,98,181

The increase in this class of traffic may be ascribed partly to the new tariff adopted in 1882, partly to the largely increased facilities offered by the system of combined post and telegraph offices introduced at the end of 1883, and partly to progress on the part of the people. The increase in the inland traffic has, however, not kept pace with the large extension of facilities offered by the Telegraph Department; the number of signal offices has increased since 1883-84 by 113 per cent., the State message revenue by 240 per cent., and the private message revenue by 40 per cent.

There was an improvement in the speed of transmission on all the main routes, notwithstanding the increased number of messages, and the average duration of interruptions was considerably smaller than in the previous year.

The charges for telegraphic money orders were reduced from 1st January 1887, and the rules were simplified, with the result of a large increase in this class of remittances.

Telephone companies are established at Bombay, Calcutta, Karachi, Madras, Moulmein, and Rangoon, and there are also a certain number of exchanges maintained by Government.

The gross earnings of the companies were Rx. 1,257 more than in the previous year, but the Government earnings in this class of business show a decline of Rx. 207.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN
TELEGRAPH
DEPARTMENT.

The capital account of the Department on the 31st March 1888 stood at 1,128,159 l. The receipts for the year were 99,234 l., and the working and maintenance expenses amounted to 83,530 l. The net receipts were therefore 15,704 l., equivalent to a percentage of nearly 1.4 on the capital outlay, and were better than the net receipts of 1886-87 by 1,876 l.

There is a joint purse arrangement between the Department and the Eastern Telegraph and Indo-European Companies, and the result of the year's working is a little more favourable than it would have been if the revenue account had been based on the receipts from the actual traffic carried by the Department. The payments into the joint purse by the Department in 1887-88 were 71,808 l., and the withdrawals were 73,976 l., leaving a balance in favour of the Department of 2,168 l.

The aggregate result of 10 years working of the common purse is that the Department has paid in 756,757 l., and received 754,815 l.

The traffic transmitted during the year was smaller, both in number of messages and of words than in the previous one.

The

The new cables in the Persian Gulf which were laid in 1885 and 1886 are in excellent order, but the older india-rubber cables are in a very weak condition. The total interruptions on the route during the year were very slight on the Departmental lines, being only some 18 hours in duration; but there were more serious interruptions on the lines of the Indo-European Company, which connect the Government system with England.

INDO-EUROPEAN
TELEGRAPH
DEPARTMENT.

The speed of transmission of the three routes between England and Calcutta was as follows:—

	Viâ Teheran.	Viâ Turkey.	Viâ Suez.
	H. M.	H. M.	H. M.
1887-88	1 11	16 11	2 42
1886-87	1 31	16 23	2 31

The errors in the transmission of messages were 0.23 per cent. of the words transmitted.

XIII.

EDUCATION AND LITERATURE.

EDUCATION.

EDUCATION in British India is conveyed through the medium of two classes of institutions, known respectively as "public" and "private" institutions. A "public" institution is defined to be "a school or college in which the course of study conforms to the standard prescribed by the Department of Public Instruction, or by the University, and which is either inspected by the Department or regularly presents pupils at the public examinations held by the Department or the University." A school or college not coming within that definition is called a "private" institution.

The information available regarding private institutions, which is neither exhaustive nor trustworthy, tends to show that the instruction imparted in them is, as a rule, less systematic and efficient than that imparted in similar schools controlled by the Department. In order, however, to present a general view of the condition of education in India, it is desirable for the moment to ignore the difference between the two classes of institutions and to combine the statistics of attendance at both.

As to the character of the instruction imparted, it appears that in the case of the greater mass of children this is of the most elementary kind. Broadly speaking, the system of education administered in India operates through three grades of institutions, namely, primary schools, secondary schools, and colleges. The primary school aims at teaching the elements of reading and writing, and such simple rules of arithmetic and land measurement as will enable the peasant in a purely agricultural country to look after his own interests. This simple course meets at the present time the wants of 94.5 per cent. of the entire school-going population. The secondary schools, in which an advanced instruction in the vernacular and a substantial knowledge of English are conveyed, claim an attendance of 5.1 per cent. of that population, while the remainder, about $\frac{1}{2}$ per cent., supplies students to all the colleges which impart the highest English education, or teach the various professions of Law, Medicine, and Engineering.

There was an increase in the aggregate number of public and private institutions to which the Educational Reports relate from 127,116 in 1886-87 to 133,125 in 1887-88. The public institutions numbered 94,288 in the former and 94,636 in the latter year, so that the augmentation was mainly due to the increased number of private institutions which have submitted statistics regarding their working to the departments of public instruction.

The percentage of the total population of school-going age which actually attended school in 1887-88 was 11.8 as compared with 10.7 per cent. in 1886-87. On 31st March 1887 there were 3,343,544 pupils on the rolls of the different schools and colleges to which the statistics relate, while by the same date in 1888 the number had risen to 3,460,844. The numbers attending school in 1886-87 were composed of 2,970,859 at public and of 372,685 at private institutions, in 1887-88 of 3,021,721 at public and 439,123 at private institutions. The records of average attendance at public institutions show a corresponding improvement, such attendance having risen from 2,798,719 to 2,855,186. Statistics to show the average attendance at private institutions are not available. The number of pupils on the rolls of the Arts Colleges rose from 8,764 at the close of 1886-87 to 10,328 at the end of 1887-88, and there was a slight increase, from 2,737 to 2,861, in the number attending the Professional Colleges. At secondary schools there were 441,876 pupils in 1887-88 as compared with 429,093 in 1886-87, while in primary schools the figures improved from 2,513,934 to 2,550,384. The numbers at the training schools declined from 5,716 to 4,761, while the increase at the other special schools, from 11,215 to 11,511, was much slighter than could be desired.

• Of the pupils under instruction the number engaged in studying English EDUCATION. rose from 310,126 to 325,425, the chief increase being in secondary schools. The number engaged in studying a classical language rose from 472,518 to 478,608, while the number studying a vernacular language only was 3,122,291 as compared with 3,036,593 in 1886-87. Of these students 2,503,680 were attending primary schools in 1886-87, and 2,543,983 in 1887-88. The increase was numerically as well as proportionately highest at private institutions, where there were 162,593 pupils studying one of the vernaculars in 1886-87, and 199,528 in 1887-88.

• If attention be directed to the race and religion of the different pupils in 1887-88, it will be found that there were 2,355,794 Hindus as compared with 2,303,812 in 1886-87; 804,485 Muhammadans as compared with 752,441; 23,160 Europeans and Eurasians as compared with 23,185; 74,498 Native Christians as compared with 60,611, and 203,121 of other classes (including Aborigines) as compared with 192,314. The most noticeable feature in the above figures is the sustained increase among Muhammadan pupils. It was distributed over every stage of education, but was chiefly noticeable at the private schools, which were attended by 240,372 pupils, as compared with 195,415 pupils in 1886-87.

• Of the total number of pupils attending school there were in 1887-88 3,182,643 boys as compared with 3,115,808 in 1886-87. Assuming the number of boys of the school-going age to be 15 per cent. of the population, the percentage of male scholars to the male population of school-going age rose from 19.5 in 1886-87 to 20.0 in 1887-88. The increase during the same period in the number of institutions attended by girls was from 6,674 to 7,012. Of the latter number 4,870 were public and 2,142 private institutions. The number of girls attending the schools rose from 227,736 in 1886-87 to 278,201 in 1887-88; those attending public institutions rose from 206,108 to 248,097, and those at private institutions from 21,628 to 30,104. The percentage of female pupils to females of a school-going age, which was 1.4 in 1886-87, was 1.8 in 1887-88.

The total expenditure on education, which was Rx. 2,524,241 in 1886-87, rose to Rx. 2,619,128 in 1887-88. Of these sums Rx. 1,983,132 in the former and Rx. 2,090,981 in the latter year were directly devoted towards public instruction. The expenditure on Art Colleges rose from Rx. 164,859 to Rx. 180,244, that on Professional Colleges from Rx. 59,995 to Rx. 72,068, and that on training schools from Rx. 54,417 to Rx. 56,615. The chief expenditure is on the secondary and primary schools, and the amount spent on the former rose from Rx. 809,529 in 1886-87 to Rx. 862,712 in 1887-88, and that on the latter from Rx. 812,448 to Rx. 838,890. There was a decline in the expenditure on special schools other than training schools, from Rx. 81,882 to Rx. 80,454. The indirect expenditure upon education, in which are included charges on account of direction, inspection, scholarships and buildings, declined from Rx. 541,110 in 1886-87 to Rx. 528,147 in 1887-88. This decrease was mainly due to the reduction of the expenditure on buildings.

This expenditure was met from provincial and local funds, from municipal revenues, from fees, and from miscellaneous sources such as endowments. Provincial revenues are shown in the annexed statements to have contributed Rx. 729,357 towards education in 1887-88, as compared with Rx. 856,125 in 1886-87. But besides the sum thus shown as directly contributed by provincial revenues, a sum of Rx. 92,697 was transferred from provincial to local board revenues in Bengal, while smaller transfers of the same kind were effected in other provinces. The contraction in provincial expenditure is thus for the most part nominal, but some true economies were effected, which is satisfactory. The expenditure from local funds, which in 1886-87 amounted to Rx. 371,458, rose in 1887-88 to Rx. 464,155, the rise being chiefly noticeable in the expenditure on those forms of education on which provincial expenditure was contracted. Thus local bodies increased their expenditure on secondary education from Rx. 54,401 to Rx. 74,500, and on primary education from Rx. 214,332 to Rx. 260,639. The expenditure on special schools from local funds fell

EDUCATION.

from Rx. 16,109 to Rx. 14,582, of which Rx. 12,070 were expended on training schools for masters. The expenditure of municipal funds on education was Rx. 129,432 in 1887-88 as compared with Rx. 120,598 in 1886-87.

There remains the contribution towards expenditure on education from the fees paid by scholars and miscellaneous sources, including endowments for expenditure on education. Fees which in 1886-87 aggregated Rx. 652,996 reached Rx. 729,409 in 1887-88. The amount of fees paid at the Arts and Professional Colleges rose from Rx. 47,327 to Rx. 62,046, those paid at secondary schools from Rx. 318,938 to Rx. 360,161, and those paid at primary schools from Rx. 253,683 to Rx. 250,308. The income from miscellaneous sources which in 1886-87 was Rx. 523,064 was in 1887-88 Rx. 566,774.

The statistics summarised above exhibit proof of satisfactory progress, and indicate that the business of the departments of public instruction was during 1887-88 generally conducted in an efficient manner. It is specially satisfactory to observe the attention that appears to have been paid to the promotion of primary education.

EDUCATION.

Ajmere.

The educational results in Ajmere during the year call for no special comment.

Berar.

In Berar little or no progress was made owing to the unhealthiness of the seasons. Female education and the education of Muhammadans, however, showed a slight advance.

Coorg and Bangalore.

In Coorg there was an appreciable increase in the number of pupils attending schools. There had been a marked decrease in the previous year as compared with the rolls of 1885-86, owing to the introduction of fees in the vernacular schools; but the subsequent increase is a hopeful indication that the reluctance to pay fees is disappearing. In Bangalore there was a slight increase in the number of pupils. Zenana work is reported to have been successfully carried on during the year.

Bengal.

The most important administrative change effected as regards education in Bengal during the year was the transfer of the control of primary education from district magistrates, acting under the advice of local committees, to district boards. This has taken place without appreciable friction, but on the general character of the work done by district and local boards in this connection, judgment cannot be passed at so early a stage. The history of University education was marked by the development of private enterprise in the founding of four new colleges, and the increased attendance at all colleges. Secondary schools, and the pupils attending them, increased considerably in numbers. The number of primary schools increased from 45,483 to 48,621, and that of pupils from 1,080,085 to 1,103,422, but here the gain in numbers is comparatively small, and does not compensate for the great loss in 1885-86. Primary education appears to have reached a stationary stage, and has not, as in the case with English education, a spontaneous tendency to develop irrespective of Government assistance. As regards special instruction law students are by far the most numerous, and read for the most part in unaided schools. The study of medicine on the other hand is mostly confined to Government institutions. There was a considerable increase in the number of Muhammadan students.

North Western Provinces and Oudh.

In the North Western Provinces and Oudh there was a further reduction during the year (from 4,893 to 4,385, and from 163,466 to 155,761 respectively) in the number of elementary schools, and the scholars who attended them. The decrease in the number of schools, however, was due to the closing of inefficient institutions, and the falling off in scholars was confined to children of the lowest classes. The attendance at the upper classes of the primary schools showed an increase. The attendance at the lower class of English schools decreased, but in the upper classes the attendance was maintained, notwithstanding the higher scale of fees introduced in 1886. The formal establishment of a University at Allahabad was effected by Act XVIII. of 1887, and arrangements preliminary to the assumption of its functions as an examining body were completed during the year. The large increase during the year (from 489 to 650) in the number of students enrolled in State and aided colleges and collegiate schools affords an indication of the growth of higher education in those provinces. The result of University examinations was, on the whole, disappointing, there having been a great diminution in the percentage of students at the B. A. F. A. and Entrance examinations. The standard of examination, however, is reported to have been higher in 1887-88 than in the previous year.

Punjab.

There is little to note regarding the progress of education in the Punjab during the year. Substantial improvement was made in various respects, but there is little doubt that the enhanced scale of fees now levied has checked the increase in numbers. This must be expected from time to time, as the policy of raising fees in all classes of schools to a reasonable pitch is enforced. The University returns are favourable, the number of successful candidates having been larger than in 1886-87. The percentage of passes among pupils in the secondary and primary stages of education was much the same as in the previous year. A general Education Conference and a Departmental Conference were held as usual in the spring of the year, and the recommendations made by the meetings were adopted in many cases by the local government.

The

The Education Department in the Central Provinces continued to make steady progress. Since 1884-85 the number of schools has increased from 1,809 to 1,892, the number of pupils from 99,010 to 108,673; average attendance from 66,986 to 74,930, and fee income from Rx. 5,219 to Rx. 6,458. There has been a similar advance in the number of passes for the various standards of examination. Under the Local Self-Government Act of 1883 the charge of rural primary schools was handed over to local bodies constituted under the Act. Government schools situated in the municipalities, however, continued to be managed by the Education Department. Rules have recently been issued for facilitating the transfer of these schools to the management of municipal committees. It is stated that district councils are only too eager to divert the funds at their disposal to educational purposes, which indicates that education is a matter of real interest to the people. Special steps have been taken to stimulate the study of physical science and to advance the cause of technical education. Provision has been made in the school curricula for the systematic teaching of elementary physics, and drawing will be compulsory in the lower primary schools. The study of physical science, of drawing and surveying, will be encouraged by prizes, by preference in the award of scholarships, and by special certificates.

EDUCATION:
Central Pro-
vinces.

In Burma the Education Department was managed on the same lines as in the previous years. The direct management of the teaching agency has been vested almost entirely in the hands of the educational syndicate, and of local bodies, the Government retaining a general control, and the immediate supervision of the directing and inspecting agencies. The statistics of education, and of the progress made by the several schools, present no unusual features. Much attention was paid to the extension of technical education, measures for the encouragement of which form an important feature in the new grant-in-aid rules. Satisfactory progress was also made in the education of girls, the number of schools, and the number of pupils who passed the provincial examinations having exhibited a marked increase.

Burma.

In Madras the total number of schools (public and private) rose to nearly 17,400, or by 4 per cent., and the number of pupils to over 500,000, or by 3 per cent. There was a slight decrease in the number of public institutions, but the number of pupils studying in them increased. Under private institutions there was a gain of over 700 schools and 10,000 pupils. There was an increase in the number of aided schools, the bulk of the increase being in primary schools. The proportion of pupils to population ranged from 1 in 14 in Madras, to 1 in 148 in Cuddapah. The percentage of boys under instruction to the total male population of school-going age rose from 18.5 in 1886-87 to 19.2. The percentage of girls under instruction remained stationary at 2.8. The total number of pupils was distributed as follows among the different classes of the population: Europeans and Eurasians 6,678, Native Christians 38,241, Muhammadans 48,098, Hindus 410,591, and others 2,050. There was an increase in the number of pupils belonging to the poorer classes, the number of boys rising by 5 per cent., and that of girls by 4 per cent. The returns of the University examinations are not satisfactory, and the Government of Madras are of opinion that large numbers of candidates are allowed to appear for the matriculation examination who are totally unfit to pass, with the result that a large sum of money is wasted, and the examination system of the University is over-weighted and suffers inevitable deterioration. They also think that the matriculation standard is too low.

Madras.

The total number of public educational institutions in the Presidency of Bombay in 1887-88 was 8,274, and of the pupils attending them 484,059, or greater respectively by 278 and 7,760 than in the previous year. Nearly six-sevenths of this increase was due to the spread of primary education, principally through the agency of institutions maintained by the Native States, and to a smaller extent, through that of institutions aided by Government and by Local and Municipal Boards. Every race contributed to the general increase; low caste Hindus to the greatest extent. The private educational institutions of the Presidency numbered 2,958, with 70,339 pupils, an increase of 31 and 4,602 respectively over the previous year; and the increase was entirely confined to elementary education. Of the total

Bombay.

EDUCATION.

number of pupils 600,872 were boys, and 53,526 girls, showing an increase of 11,777 and 685 respectively. Of children of school-going age 27 per cent. boys and 3 per cent. girls were under instruction. The number of students who appeared at University examinations, higher than the matriculation, was 1,276, and the number who succeeded was 566, or 30 and 101 less respectively than in the previous year. The various training colleges and schools for schoolmasters and mistresses were maintained in a state of great efficiency. The arrangements connected with the formation of the Victoria Jubilee Technical Institute were nearly completed during the year. The programme of the Institute comprehends, for the present, instruction in machine drawing, the use of steam, theoretical and applied mechanics, &c.

LITERATURE AND THE PRESS.

LITERATURE.

The Act XXV. of 1867, passed by the Governor General of India in Council for the regulation of printing presses and newspapers, provided amongst other things that every book or paper printed within British India shall have printed legibly on it the name of the printer and the place of printing, and (if the book or paper be published) of the publisher and the place of publication. It also provided for the registration of every book, pamphlet, map, &c., printed or lithographed in British India.

Ajmere, Coorg,
Bangalore, and
Berar.

There was nothing deserving of special notice in connection with literature and the press in Ajmere, Coorg, Bangalore, and Berar during the year under review.

Bengal.

A large number of translations of well-known works were published, and a few original works were produced. The principal English newspapers published in Bengal were 12 in number. Of these, nine were published in Calcutta, and one in Darjeeling, one in Patna, and one in Dacca. The number of vernacular newspapers supplied to the Bengal Library during the year, including two published in Assam, was 66, as against 63 in the preceding year. Twelve newspapers came into existence, while nine were either discontinued or incorporated with other papers. Of the 66 newspapers, seven were monthly, nine fortnightly, 44 weekly, one bi-weekly, and five daily. All were published in Bengali, except eight in Hindi, eight in Uriya, seven in Urdu, and one in Persian. Twenty-five newspapers were published in Calcutta, five in the remainder of the Presidency Division, seven in the Dacca, three in the Burdwan, six in the Patna, four in the Chittagong, three in the Rajshahye, seven in the Orissa, and two in the Bhagulpore divisions. Two were published at Chandernagore and two in the province of Assam. Of the daily papers, the "Dainik" maintained its circulation of 7,000, and of weekly papers, the "Bangabasi" that of 20,000. The number of publications received in the Bengal Library during 1887 was 2,255, or 316 less than in 1886. Of these publications, 266 were in English, and 1,989 in other languages. Of the total number, 211 were periodicals; while of the remaining 2,044 books, 298 were bi-lingual and 1,746 uni-lingual; those published in Bengali numbering 934, those in English 188, those in Hindi 101, and those in Uriya 88. The subjects chiefly treated were, language 412, religion 171, and poetry 150.

Assam.

In Assam 23 works were registered during 1887-88, against nine in the preceding year. Of these, 12 were educational and 11 were non-educational, 15 were original works and eight were re-publications, but none of them possessed sufficient interest to call for any detailed comments.

North-Western
Provinces and
Oudh.

In the North-Western Provinces and Oudh there were 35 English publications in 1887-88, against 49 in 1886-87, and 39 in 1885-86. In Urdu there were 452 publications against 522 in the previous year. Of these may be mentioned the "Ghayat-ul-Antar," an Urdu translation of a well-known and authoritative work on Muhammadan law. There were 262 publications in Hindi against 468 in the previous year; in Sanskrit there were 42 against 44; in Arabic, 25 against 50, and in Persian, 65 against 119. Polyglot works numbered 197, compared with 248 in the previous year. Sixty newspapers were published in the North-Western Provinces, and 17 in Oudh. The great majority were in the Urdu language. European

politics

politics excited but little discussion during the year, the political affairs dealt with being chiefly those of Afghanistan. LITERATURE.

In the Punjab 42 newspapers were published, nearly all of them being in the Urdu language.

Three works of no importance were published in the Central Provinces during the year. There were 10 vernacular newspapers.

In Burma 142 publications were registered during the year, consisting of 45 European, 117 vernacular, and 10 bi-lingual. The works were chiefly under the head of "Drama," "Religion," and "Language." There appeared 76 original works, 62 re-publications, and four translations, as compared with 107 original works, 20 re-publications, and 14 translations in 1886-87. None of the publications of the year call for special notice. Five newspapers were issued daily, four in English, and one in Burmese. The highest daily circulation of any of them was 630. In addition to these, several others were issued weekly and monthly.

In Madras the total number of books registered in 1887 was 1,043, or 113 more than in 1886. There has been a steady increase in the number of publications since 1884. Out of the total for 1887, 823 were books and pamphlets, and 220 were issues of periodical publications; the growing activity of the press in the last-named species of literature being noteworthy. The number of original works advanced considerably during the year; and there was a still greater advance under the head of re-publications. The number of translations fell from 92 to 22. The books published in English or other European language numbered 238, against 184 in 1886; 671 were in the vernacular languages of the Presidency and 46 were in the Indian classical languages. There was a general increase in the number of works published in every spoken and classical language of the Presidency except Sanskrit, in which a temporary falling off was observable, only 30 books having appeared, against 55 in 1886. The preponderance of Tamil books shows that the Tamil people continue to possess more advanced literary tastes than their Telugu neighbours, the number of books in this language being more than double that of the Telugu. Educational works amounted to 22 per cent. of the total. Cases of infringement of copyright were again common, and the need of an amended copyright law or international convention between British India and foreign Powers continued to manifest itself. There were in all 77 different vernacular newspapers and magazines published during the year, as compared with 56 in the preceding year; of these, 48 were general and political, 10 were scientific and literary, and 19 were religious. Most of these publications had but a very small circulation.

The total number of publications registered in 1887 was 1,793, or 11 less than in the previous year. In quality as well as in quantity the literature of the year was barely on a footing of equality with that of its predecessor. The important subjects of arts and sciences were still neglected; light literature and religion received much attention as usual, and some was paid to the questions of the day regarding the marriageable age and the position and rights of Hindu women. Of the total number of publications, 67 were produced by graduates of the university. The tone of the publications was on the whole unobjectionable. The number of newspapers published in the Bombay Presidency by natives of India increased from 111 to 118, and that of periodicals diminished from 37 to 11. Many of the newspapers were, however, conducted by persons hardly qualified to undertake the responsible duties of journalists. The Jubilee evoked warm sentiments of loyalty, which found expression in the Press.

XIV.

EMIGRATION AND MIGRATION.

EMIGRATION.

UNDER the latest Indian Emigration Act, XXI. of 1883, an Indian "emigrant" is one who goes by sea under contract to labour for hire to some country other than Ceylon and the Straits Settlements. These countries are excepted on account of their proximity, and of the similarity of their general conditions to those of India. The emigration under this Act is in other terms styled "colonial emigration."

The decline of the cane sugar industry continued to retard the flow of emigration to the colonies, and requisitions were in 1887 received from Demerara and Trinidad only; from the former for 2,625 adult labourers, and from the latter for 2,000, the total thus aggregating 4,625, as against 7,010 in 1886.

Licenses to the number of 345 were issued during the year, 313 for the two agencies at work and 32 for the Fiji Agency, which, however, despatched no emigrants, against 466 granted in 1886. It is satisfactory to observe that only three licenses were cancelled. The recruiters for the Demerara and Trinidad agencies enlisted 6,882 persons, male and female. Of these, 2,607, against 4,002 in 1886, were registered in the provinces of Bengal and Behar, 3,413 against 4,274 in the North Western Provinces, and 862 against 997 in Oudh. The more extended recruitment remarked in the North Western Provinces is in accordance with the experience of former years, that the natives of Lower Bengal generally (the province of Behar excepted), are, unless pressed by privation, reluctant to emigrate to the colonies, notwithstanding the very favourable terms offered. It is observed that recruitment for the colonies was most active during the months of June to October, when emigration to the tea districts is at the lowest ebb.

The total number of persons who actually embarked for the colonies was 5,966, or 82.13 of the whole number recruited, Demerara being the destination of 3,836 and Trinidad that of the remaining 2,130. Of these, 3,639 were men, 1,518 women, and 809 children; while 565 of both sexes and of all ages were return emigrants, the majority from Demerara, Trinidad, Surinam, and Natal. The rule regulating the proportion of females to males in each shipment was fully complied with. The emigrants were despatched in 11 ships, the length of the voyage varying from 86 to 105 days, the aggregate mortality during the passage being 1.34 per cent. of the whole number embarked, and the death-rate exceeding 2 per cent. in only one instance.

Six thousand four hundred and six emigrants returned from the colonies, and brought with them savings amounting to Rx. 70,646 or, on an average, more than Rs. 110 each. Those from Demerara (1,844) and Trinidad (546) had, as usual, amassed the largest sums. The death-rate on the return voyages was not excessive, and in one case only did it exceed 3 per cent.

Two hundred and twenty-nine estates of deceased emigrants, valued at Rx. 2,428 came under the administration of the Emigration Department during the year, and of these only 31, valued at Rx. 298 remained undisposed of, the inquiries for heirs not having been completed before the close of the year.

The

The following statement shows the number and description of East Indian emigrants who left Calcutta for the West Indies during the year 1887 and the number returned therefrom during the same period—

NAMES OF COLONIES.	EMBARKED.								RETURNED.							
	Men.	Women.	Children.		Infants.		Total Number of Souls.	Total Number of Statute Adults.	Men.	Women.	Children.		Infants.		Total Number of Souls.	Total Number of Statute Adults.
			Boys.	Girls.	Boys.	Girls.					Boys.	Girls.	Boys.	Girls.		
Demerara	2,373	984	217	144	59	5	3,336	3,596½	1,052	425	133	144	28	22	1,804	1,640½
Trinidad	1,866	584	140	103	48	29	2,130	1,965	241	123	40	55	10	11	533	473½
Jamaica	-	-	-	-	-	-	-	-	72	45	17	19	1	6	160	138½
Surinam	-	-	-	-	-	-	-	-	283	95	51	29	10	9	477	427½
Guadeloupe	-	-	-	-	-	-	-	-	291	126	35	30	7	5	494	455½
Bourbon	-	-	-	-	-	-	-	-	96	19	8	6	1	-	130	122½
TOTAL	3,639	1,518	367	247	107	98	5,366	5,561½	2,085	833	284	288	57	53	3,598	3,258
TOTAL for 1886	3,326	1,355	316	244	71	89	5,211	5,046	2,185	978	406	364	79	83	4,095	3,548

General statistics as to the number of coolie emigrants from India to the various destinations will be found in Statement of the Twenty-third number of the Statistical Abstract relating to India.

During the year 1887 265 persons emigrated from British India to Mauritius, and 667 to Natal; 991 return emigrants, with savings amounting to a quarter of a lakh, arrived from the former place, and only 74 from the latter, these last being mostly invalids or paupers. Emigration to the Straits Settlements was opened from Madras in October 1887; only 78 persons proceeded thither, and before the end of the year about 50 returned. There was no emigration during the year to any of the French colonies from either Pondicherry or Karikal, and 3,725 emigrants returned from Réunion, Guadeloupe, and Martinique, against 2,331 in 1886. The rate of mortality among the return emigrants was less than 3 per cent, while in 1886 it was above 6 per cent. Savings amounting to more than half a lakh were declared. Emigration from Madras to the Straits Settlements is regulated by a special enactment, applicable only to the Madras Presidency (India), Act V. of 1877, and by an Ordinance of the Colony, No. 107, 1876. By this Ordinance the Straits Government undertakes to keep the coolies under observation during the whole period of their contract, and to reconvey them to India when they become incapacitated for further labour. At Negapatam 17,275 native passengers embarked for the Straits, of whom 4,996 were registered emigrants. Ceylon, as has been said, is exempted from the operation of the Emigration Act of 1883, and the migration thereto of labourers from Madras, which is very considerable, is entirely voluntary, the Government of Ceylon confining itself to checking the statistics and seeing that the coolies are properly housed, fed, and provided with medical attendance.

MIGRATION.

The passenger traffic from the Madras Presidency to Burma increased considerably, 17,981 persons embarking at Negapatam, against 13,581 in 1886; this increase was due to the great demand for labour on the newly-projected railway works in Burma. During the year 7,985 passengers returned from Burma. The number of immigrants by sea registered at Rangoon was 87,427, a considerable increase as compared with the number reported in the previous year. On the other hand, the number of emigrants fell off somewhat, only 49,839 having left Rangoon. In Arakan there were 2,935 immigrants and 3,112 emigrants.

MIGRATION.

3,112 emigrants by sea, but a considerable number of emigrants who came by land were not registered. No statistics are available of the persons who passed the old frontier between Upper and Lower Burma, but it is known that large numbers of Upper Burmans come to Lower Burma through Prome and Toungoo. Some have settled as farm labourers or as tenants, but many have no doubt returned to their villages in Upper Burma.

To ASSAM.

The principal feature in migration to Assam was the great increase shown in the emigration of labourers recruited without reference to the Act. These are called free emigrants, though, as they are conveyed in large batches at the cost of contractors and execute labour contracts at Dhubri on their entering into Assam, their actual position during the journey and their eventual legal position is the same as that of the labourers whose recruiting and whose journey are supervised by Government. The number of these "free" emigrants to Assam was 21,851, as against 13,134 in the preceding year, and there was also considerable emigration to Cachar and Sylhet. Two agencies are employed for recruiting under the Act, that of licensed contractors, and that of garden sardars authorised by the employers of labour. The former recruited 2,945 labourers, as against 2,924 in 1886; the latter, 6,748 as against 10,124. From these figures it would appear that the unlicensed recruiting above referred to, having almost superseded the work of the contractors, is now rapidly ousting that of the garden-sardars.

The 24 Pergunnahs and Burdwan in Bengal, and Shahabad in Behar, are the largest recruiting-grounds. The proportion of emigrants who were natives of the district in which they were registered was largest in Hazaribagh and Bancoorah, and smallest, as usual, in the 24 Pergunnahs and Burdwan, where registration was most active. The health of the emigrants, both while in the depôts and during their transport to the labour districts, was on the whole very good.

The total labour force in the tea districts at the end of the year is stated to have stood at 323,919 persons, as against 304,158 persons at the close of 1886, 81,723 of these being adults engaged under the Act, 119,722 children, and 122,474 free labourers. Among statutory labourers there was an increase in desertions, as compared with the number given in the preceding Report, and, with the exception of Sylhet and Kamrup, this feature is common to all districts, and is particularly noticeable in Cachar, where the percentage was 8.23, as against 5.53 in 1886. The explanation that this is due to the large importations of the year, newly-arrived coolies, being most prone to desertion, is not regarded as satisfactory by the Chief Commissioner, who, however, promises to endeavour to throw further light on the matter in his next report.

The Chief Commissioner made special inquiries into the relations between the employers and labourers, and into the truth of the charges which are made from time to time against the system of emigration to Assam. It is satisfactory to find that after these inquiries the Chief Commissioner still holds that the relations between the employers and labourers seem to be fairly good. It appears that in the non-manufacturing season the average monthly wage for Act labourers is Rs. 4. 13. 3. for men, and Rs. 3. 1. 8. for women, whilst the highest monthly rate is Rs. 6. 10. 6. and Rs. 5. 15. 1. In the manufacturing season the average monthly wage for Act labourers is, for men Rs. 5. 0. 5., and for women Rs. 4. 5. 9., the highest rate being Rs. 12. 4. 6. and Rs. 11. 10. 8. For non-Act labourers in the non-manufacturing season the monthly average rate is, for men Rs. 6. 1. 5., women Rs. 3. 1. 10., children Rs. 2. 5. 10., the highest monthly rate in the same season being Rs. 13. 0. 3., Rs. 5. 11. 11., and Rs. 4. 13. In the manufacturing season the monthly average for non-Act labourers is, for men, women, and children, Rs. 6. 13. 10., Rs. 4. 6. 5., and Rs. 2. 10. 10., and the highest wage, Rs. 10. 0. 5., Rs. 12. 13. 1., and Rs. 4. 14. 9., respectively.

Four hundred and ninety-two labourers were convicted of offences under the Penal Code, as against 436 in the previous year, and of this number 36 were punished for unlawful assembly, 45 for rioting, 68 for assault or causing hurt,

hurt, and 96 for theft. Convictions under Act XIII. of 1859 fell from 166 in 1886 to 97 in 1887, the provisions of this enactment having been put in force chiefly in the districts of Sylhet, Lakhimpur, and Sibsagar. MIGRATION.

The year under review is described as having been a healthy one. There was a decrease in the death-rate on tea gardens, the figure for 1887 being 36·2 per mille, indicating a lower rate than that of any year in the past decade except 1880 and 1881. The diminution in the number of unhealthy gardens from 64 in 1886 to 49 in 1887 is particularly gratifying, and it is evident that the question of unhealthy gardens has the Chief Commissioner's closest attention.

The birth-rate showed a farther falling off during the year, and was lower than the death-rate in all districts with the exception of Cachar.

With regard to "free emigration," to which reference has already been made, it must be admitted that that system has worked in a manner very different from what was contemplated by its authors.

It was thought that the time had arrived when emigrants might be expected to come to Assam in large numbers without much assistance, or at all events without the stimulus and aid of the elaborate organisation then provided by the professional supplier of labour, and that the system of contractors, *orkattis*, and so forth, would in time die a natural death; but, instead of this, the great and ever-increasing mass of the labour supply business has remained in the hands of the professionals, with this difference, that, whereas formerly these persons worked under strict regulation and control, they now, under the "free emigration" system, work free from all control. As a result, certain evils, more or less incident to any system of emigration, have been considerably aggravated.

The whole question of amending the Act has now for some time been engaging the special attention of the Government of India.

XV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being furnished in a separate Parliamentary Paper [C.-5680], a brief Review only is given under the present Chapter.)

TRADE.

TRADE of 1887-88.

IMPORTS of merchandise into India made a further great stride in 1887-88, while exports advanced to a much less extent. Measured in tens of rupees, private imports rose, in round numbers, from $51\frac{3}{4}$ millions two years previously to over $58\frac{1}{2}$ millions in 1886-87, and over $62\frac{1}{4}$ millions in the year under review, while exports rose from $83\frac{3}{4}$ to nearly $88\frac{1}{2}$ and $90\frac{1}{2}$ millions respectively in the same periods. Compared with the statistics of five years back, imports had risen by over $12\frac{3}{4}$ millions, exports by only 7 millions. This fact is of importance with reference to the anticipations once held as to the effect of the depreciation of silver in stimulating exports at the expense of imports.

The net imports of treasure, which vary considerably from year to year, were about $12\frac{1}{4}$ millions during the year 1887-88. The proportion of gold which entered the country showed a moderate improvement; but it did not attain to the figures of former years, ending with 1884-85.

Government stores were imported to the value of over $2\frac{1}{2}$ millions; and the re-exports were valued at Rx. 72,000.

Returning to the consideration of private merchandise, the most marked features were the following decreases:—in imports, cotton piece-goods, (2 millions); and in exports, wheat (3 millions) and opium, (one million). These unfavourable results were far more than balanced by the improvement which appeared in the great majority of items. Imports of railway materials and exports of raw jute both increased by over one million, and exports of raw cotton to nearly the same extent. The steady annual advance in the value of tea exports continued, the increase this time being nearly half a million.

The falling off in imports of cotton goods, due to previous overstocking of the market, would have been greater but for the exceptional demand for Burma. In twist and yarn there was actually an increase, which was also to some extent caused by the activity of the Bengal weaving mills, and this notwithstanding the fact that the supplies of Indian manufacture were so large as to exceed those which came from England. The demand for Indian twist for China steadily continued.

Petroleum was for the first time subjected to duty during this year. The imports declined in quantity, with higher prices which raised the total value. Whether or not this had anything to do with the duty, at all events subsequently to the year under report the trade recovered and showed a most satisfactory increase; a rapidly increasing trade has begun in petroleum imported from Asiatic Russia.

The share of the five principal ports in the total foreign trade (which aggregated in value 171 millions) was as follows:—

	Rx.
Bombay - - - - -	72,952,279
Calcutta - - - - -	60,327,381
Rangoon - - - - -	9,918,980
Madras - - - - -	9,147,908
Karachi - - - - -	5,390,488
Rx.	157,737,031

The

The trade of Bombay increased by Rx. 4,577,000, that of Calcutta by only Rx. 1,345,000. The trade of Burma showed very satisfactory expansion, the value of imports having risen from Rx. 3,710,000 to Rx. 5,689,000.

The value of the trade with the United Kingdom was over 92 millions, and of that with China (including Hong Kong) over 18 millions. France comes next with eight millions.

The total number of vessels engaged in the foreign trade which entered Indian ports was 5,308, of which the total tonnage was 3,514,214; of this tonnage 2,823,712 belonged to British shipping, 136,968 to British Indian, 470,223 to foreign, and 83,311 to native craft.

If the trade across the land frontier, and also the foreign trade of the French and Portuguese Possessions, be taken into account, the total foreign trade of India may be stated at nearly 181 millions of tons of rupees in value.

Although it does not properly come within the scope of this volume, the leading features of the trade of 1888-89 (as gathered from the monthly accounts, which are approximately correct), may here be stated. During this year imports advanced by a less amount than exports. The former (private trade only) were valued at more than 66½ millions, and the latter at close upon 97 millions. Net imports of treasure were very slightly less than in the preceding year. The great items of increase in the import trade was cotton piece goods, which were as follows:—

	1887-88.	1888-89.
	Rx.	Rx.
Grey	13,401,533	15,959,470
White	4,627,847	5,574,451
Coloured	5,287,831	5,626,335

showing altogether an improvement in value to the extent of Rx. 3,843,000.

Kerosine imports rose to Rx. 1,767,727 from Rx. 1,216,817. While imports from the United States declined from Rx. 981,850 to Rx. 925,816; those from Russia advanced from Rx. 227,244 to Rx. 834,576.

Under exports, wheat increased by Rx. 1,965,000, jute by nearly Rx. 1,857,000, and cotton twist and yarn by Rx. 1,130,000. Rice fell off by Rx. 1,376,000. In cotton, silk, and seeds, although the quantities fell off, there was an increase of values. About 9½ million pounds of tea were exported more than in the preceding year, the difference of value being Rx. 93,000.

MANUFACTURES.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art-work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the far cheaper cotton yarns and fabrics, and before the iron or steel products of British factories. Meanwhile without any protection, favour, or advantage, other than is afforded by cheap Indian labour, and by the production of raw materials in India, an important manufacturing industry is growing up, and steam-power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. There were 97 cotton mills at work, of which three-fourths were in the Bombay Presidency, and which altogether represent a capital of Rx. 10,000,000. These cotton mills employ over 80,000 hands, and, with their 18,400 looms and 2,375,379 spindles, consumed 2,526,000 cwt. of raw cotton in 1887-88 as compared with 2,371,000 cwt. in 1886-87. There has been also considerable

MANUFACTURES.

progress in the jute industry; the 25 jute mills, mostly in Bengal, employing 56,000 hands, worked up 175,000 tons of jute, or 30,000 tons more than in the previous year. Forty-two rice mills, for husking and cleaning rice, and 35 saw-mills, most of which were in Burma, employed over 40,000 hands. The produce of the paper mills, of which there were four in the Bombay Presidency, and five in other parts of India, had increased in value from Rx. 177,995 in 1885 to Rx. 258,645 in 1887. There were 19 breweries at work, of which three were opened in 1887-88. They produced during the year 4,860,000 gallons of beer and porter; the principal customer for this malt liquor is the Commissariat Department, which buys it for the use of European soldiers. Out of 3,217,000 gallons brewed in Bengal, 2,637,000 gallons were purchased by the Commissariat Department, besides large quantities taken for the troops from breweries at the Nilgiris, Poona, and Mandalay.

Among other "large industries," which are shown in the Indian Returns for 1887-88, may be mentioned:—

Woollen mills	-	-	3	Cutch and lac factories	-	50
Silk mills	-	-	9	Oil mills	-	28
Soap Factories	-	-	2	Flour mills	-	28
Tanneries (large)	-	-	7	Ice factories	-	16
Iron and Brass foundries	-	-	46	Pottery and tile factories	-	14
Sugar factories (large)	-	-	9	Cement factories	-	1
Coffee works	-	-	23	Bone manure factories	-	1
Cotton and jute presses	-	-	248			

These do not include silk filatures where raw silk is wound by hand, or indigo factories and tea factories which are worked on indigo and tea estates. Returns of village and domestic industries are made at the census, once every 10 years, and do not find place in the annual reports.

There were at work in the Hyderabad Assigned Districts 26 steam cotton presses, an increase of two; but, owing chiefly to the partial failure of the crop, the out-turn fell off from 297,905 to 226,498 bales of cotton pressed.

The oil press at Amraoti did well, having turned out 300 tons of oil and 658 tons of oil-cake. Owing to the small demand for raw oil in Akola, the out-turn by the press at that station was only 45 tons.

Bengal.

The quantity of jute worked up in the mills of the Presidency division of Bengal was 90,329 tons, against 76,800 tons in the preceding year.

Indigo prospered during the year in the Presidency division. In Bhagulpore the out-turn generally fell off, owing to unseasonable rain and early floods; but prices were slightly better.

The four cotton mills of the Presidency division worked up 7,685 tons, which showed a decrease of 645 tons; the value, however, was greater by about Rx. 40,000. A feature of the season was the increase in the export to China of yarn from the Calcutta mills.

The following remarks by the Burdwan Commissioner are stated to agree in substance with the reports received from all parts of the Lower Provinces: "In spite of the importation of cheap European piece-goods, cotton is still woven by local weavers in every district. As a rule they know no other work, and cling to their ancestral business to obtain a precarious means of living. This industry is, however, on the wane, as the weavers cannot compete with Manchester in the production of cheap goods. In Burdwan a revival of this industry has been noticed in the last two years; but generally, although those who can afford them prefer the country cloths, which are of a better texture and more durable, the cheapness of Manchester goods drives the local manufacture out of the market."

In the Moorshedabad district there were during the year 77 filatures, which produced 371,458 lbs. of silk, valued at Rx. 233,818, against 230,120 lbs., valued at Rx. 172,276, in the preceding year, when 91 filatures were at work. The manufacture of silk fabrics in Bhagulpore and Maldah was also declining, owing to the competition of European-made goods of a better and cheaper quality. It is reported that attempts are being made to improve the quality of the silk by inducing the natives to take more care of their

their worms, and by the judicious use of European mulberry seeds. With this view European seed has been distributed, and foreign cocoons have been introduced. Some experiments are also said to have been made successfully to get over the difficulty of spinning tusser by means of a chemical process.

Besides the large sugar mill at Cossipore, there are said to be 170 smaller factories in the district, at which sugar is refined according to the native method. In Jessore sugar is manufactured all over the district. There is one manufactory at Kotechandpore, where 14,833 maunds of refined sugar were produced. It is observed, however, that the industry has declined since foreign sugar has been brought into the market.

There was a decrease in the manufacture of salt in all the Orissa districts except Pooree, where the out-turn increased from 6,000 maunds in the previous year, when the greater number of the manufacturers resigned their licenses through objection to being placed under the Madras rules, to over 80,000 maunds, the manufacturers having resumed business. In Balasore the industry is fast dying out, owing to the competition of Liverpool salt.

At the Monghyr factory, mentioned in the Statement for 1886-87 (page 142), 2,301 muzzle-loading guns were manufactured during the year under report.

The rice mill at Chittagong, which gives steady employment to 500 men during the season, turned out an increased quantity of rice during the year.

It may in conclusion be noticed that a native engineer, a man of considerable means and intelligence, has opened a brass foundry at Moheshgunge, and it is said that the manufacture and trade in brass vessels are brisk.

There are various manufactories in the North-West Provinces and Oudh, of which the principal are 2,210 indigo factories, employing 66,530 hands. Five cotton mills employ 3,580 hands; and there are also 13 cotton presses.

The brass and copper manufactures of the Punjab depend for the raw material on importations, chiefly from Europe. In former times copper used to come from Cabul, but this has entirely ceased; and Chinese zinc has long been driven out of the market by the European spelter. Various copper and zinc ores exist in the Kulu Hills and other parts of the Himalayas, but the imported copper and brass are so cheap that there is no present hope of those ores being worked. The most noticeable feature in the more recent developments of the industry is its concentration in certain towns, which have acquired a reputation for the quality of their goods.

The company of Burmese artists formed in the previous year is still in existence, and the business is progressing fairly. Advertisements have appeared in all the leading papers in India, and copies of the advertisement and price-list have been freely circulated to officials and merchants. Two more members joined the company, Maung Po Thet, silversmith, and Maung Kya Gaing, ivory carver. There was a very steady demand for silver-work during the year. The demand for wood carving somewhat decreased. The demand for appliqué and ivory work continued fair.

Cotton spinning and weaving by hand, which form the chief manufacturing industry in the Madras Presidency, are steadily declining before the cheap machine-made goods imported from European countries. Owing to the loss of their usual occupation, several of the weaving class in the Vizagapatam district are said to be migrating to other countries in search of employment. In other districts also they are turning their attention to cultivation and other means of livelihood. The number of private looms in the different districts was 284,000, of which 267,700 were for the manufacture of cotton goods, 3,369 for silk cloths, and 9,737 for woollen goods. There were 32 cotton presses, but two of them were not worked during the year; the out-turn of work done at the remaining presses was 737,165 cwt. of cotton pressed, against 614,226 cwt. in 1886. Six cotton mills were worked during the year, four at Madras, one in Bellary, and one in Tinnevely. Their out-turn amounted to 102,600 cwt. of cotton twist, yarn, and cloth.

There were three factories for the manufacture of sugar, one at Aska in Ganjam, and two in South Arcot at Nellikuppam and Iruvallepet. The

MANUFACTURES.

last-named factory was not worked during the year. The Behea sugar-cane mill was largely used in the western taluks of Bellary. Messrs. Arbuthnot and Co.'s factory at Chittavalasa in Vizagapatam turned out 34,600 cwt. of *gunny bags*, the material used being the ordinary Indian hemp. The chief of the remaining factories are the *paper* mills in Kistna and Anantapur, the *ice* factory at Madras, and the *tile* manufactory in South Canara.

Bombay.

The prosperity of the *cotton* mill industry continued unabated throughout 1887. Notwithstanding a large addition to the number of spindles in operation, and a still larger increase in the production, there was no congestion of stocks, the markets in China and Japan continuing to absorb increasing quantities of Bombay-made yarns. The number of spindles in the mills worked by steam power in this Presidency, including Native States, increased from 1,698,797 in 1886 to 1,779,220 in the year under report. The number of mills was 55 in Bombay and its suburbs, and 20 in the Mofussil, against 50 and 20 respectively in the previous year.

The *cotton* gins and presses in Khandesh are reported to have been increasing to such a remarkable extent that even if the native hand-wheel for cleaning cotton falls entirely into desuetude, there will not be sufficient employment for them.

The *hand-loom weaving* industry in the Ahmednagar district has of late years greatly diminished, and the "Nagar carpets," which were so well known in former years for the superiority of their designs and their general excellence, are not now procurable.

The Surat dealers in *art fabrics*, such as carved sandal-wood and ivory work, embroideries, and cloth of gold, showed their anxiety to keep their wares before the public by sending numerous exhibits to the Glasgow Exhibition. The sandal-wood carvers of Kumta, in the Canara district, were disappointed to find that most of the articles forwarded by them on their own account to the Antwerp Exhibition were returned unsold.

From Karachi it is reported that the introduction of *bone-crushing* machinery has rendered it possible for shipowners to convey bones at ordinary cargo rates, and that this fact may be expected to have a favourable influence on the largely expanding trade in the export of bones.

The *Reay Paper Mill* at Mundhwa near Poona with a capital of Rx. 50,000 commenced work during the year. It afforded employment to 180 persons on an average, and produced 130½ tons of paper valued at Rx. 5,460.

Central Provinces.

An increase in the amount of *cotton* worked up, and in the amount of labour employed, appears in all the mills of the Central Provinces, and especially in the Jubbulpore mills, which were established in 1885.

XVI.

NATIVE STATES, FRONTIER RELATIONS, ARMY AND MILITARY OPERATIONS.

THE area and population in 1881 of the Native States, excepting, however, the Shan States subordinate to Burma and estimated to have an area of about 80,000 square miles, will be found in pages 1 to 24 of the Twenty-third number of the Statistical Abstract.

The 50th anniversary of the Queen's accession was celebrated in India in February 1887. A further occasion of rejoicing was found on 21st June, which was the date fixed for its celebration in England; moreover, a considerable number of the Native chiefs of India or of representatives from their States came to England to be present at the ceremonies in this country. Among these were the Maharaja Holkar of Indore, who received from Her Majesty the decoration of C.C.S.I., and the Rao of Kutch, and the Maharaja of Kuch Behar, who were made Knight Grand Commander of the Order of the Indian Empire. At a later period of the year under review, when large and expensive schemes of frontier defence were adopted, notwithstanding financial difficulties, for the protection of imperial interests, many of the rulers of the great Native States of the Peninsula, commencing with the Nizam of Hyderabad, and including the principal States of the Punjab, Rajputana, and Central India Agencies, again exhibited their liberality and loyalty by offering to the Indian Government, either large sums of money for frontier defence, or in case of emergency their troops, their services, and their resources. While expressing its sense of the loyal spirit in which these offers were made, the Indian Government was unable to decide at once whether, or in what way the offers should be accepted. No decision was arrived at during the year under review.

In direct relations with the Government of India are the four great States of Hyderabad, Mysore, Baroda, and Kashmir, and the two groups of States comprehended in the Central India Agency and the Rajputana Agency.

In the State of Hyderabad (excluding the Assigned Districts), and in the large Agencies of Central India and Rajputana, the prevalence of Dacoity is indicated by the following figures, taken from the Report of the Department established for the suppression of this crime and of Thuggee:—

		Number of Dacoities.	Number of Persons Killed.	Number of Persons Wounded.	Value of Property Stolen.	Value per Case.	Number of Dacoits concerned.	Number per Case.
					Rs.	Rs.		
Central India	1886 -	154	38	127	2,10,524	1,365	3,805	24
	1887 -	178	31	119	3,16,793	1,780	5,334	30
Hyderabad	1886 -	119	9	29	68,782	578	1,619	13
	1887 -	105	1	36	94,622	901	1,497	14
Rajputana	1886 -	87	4	34	35,456	407	590	10
	1887 -	73	11	42	45,858	628	2,034	28
TOTAL	1886 -	360	51	190	3,14,562	882	6,314	18
	1887 -	356	43	197	4,57,273	1,003	8,865	19

These figures show that there has been no general improvement; but it must be remembered that in many of the States the season was bad, and distress generally leads to a prevalence of crime. It will be noticed that increase in the number of cases is confined to Central India; and the State in Central India, which is responsible for the whole increase, is Gwalior, in which 115 dacoities occurred, resulting in the death of 21 persons and the wounding of 57, and the plunder of nearly 2½ lakhs of property. The Gwalior authorities, who had again been warned by the Governor General's

NATIVE STATES.

Agent that if no Native officer was competent to break up the dacoit gangs, a British officer would have to be sent with full powers to the disturbed districts, at last in 1888 set to work energetically to deal with the prevailing disorder. The worst gangs were then completely broken up, 10 dacoits being killed and 123 apprehended while 36 voluntarily surrendered. So a great improvement may be expected in the report next year. The numbers given in the above table must not be considered by any means complete. Many cases are never recorded, of which a certain proportion are brought to light in after years. In 1887 as many as 305 cases, for 85 of which Gwalior is responsible, though not previously reported, were thus brought to light by the department. These cases involved the plunder of Rs. 2,14,000 worth of property. The State of Indore is especially lax in the matter of reporting cases. Not only are many dacoities thus unreported, but many other cases which are of the nature of dacoity, such, for instance, as cattle-lifting on a large scale (for instance, 1,465 head were stolen in 51 cases in the one State of Bhopal in the year under review), are not recorded as dacoities. In Marwar (Jodhpur) there was a marked improvement, on the other hand in Meywar (Udaipur) dacoities were more numerous. Some diminution of disorder in Rajputana is due to the arrest of a notorious outlaw, named Meo Khan, who had been guilty of many dacoities mainly in Ulwar. Bhopal, too, was freed during the year under review from some of the Pathan gangs that had been committing depredations in that State. And from the Western Malwa States over 150 Pathans were deported to Peshawur; 600 more are to be dealt with in the same way, if possible. In the Bhopawar Agency many of the cases, which are generally of a petty character, are the work of Bhils. The condition of these tribes is improving. Among the criminal tribe of the Moghias, too, there is improvement, and a growing disposition to settle down to fixed agricultural pursuits. Maharaja Holkar has wisely granted Rs. 10,000 to fit out the Moghia colonists. It is noticed in Rajputana that the system of releasing captured dacoits "on security" has answered satisfactorily.

Hyderabad, and
the Assigned
Districts.

The principal Native State in India is Hyderabad, with an area of 81,807 square miles, and a population at the time of the last census in 1881 of 9,845,594. Its revenue amounts to Rx. 3,200,000, of which not less than Rx. 1,800,000 is derived from land.

Under treaty with the Government of India the surplus of the province of Berar is paid to the Nizam. Accordingly, though these Assigned Districts are administered under the Government of India, the revenue and expenditure in them are excluded from the regular accounts of that Government. In the year 1887-88, omitting the figures for excluded local funds, the revenue of the Assigned Districts rose from Rx. 975,962 to Rx. 987,120, and the expenditure from Rx. 790,542 to Rx. 813,470. The surplus, therefore, was only Rx. 173,650. Of the expenditure, Rx. 370,845 were classed as civil, Rx. 303,036 as military, and Rx. 139,589 as devoted to public works, including railways. The principal increase of expenditure was one of 2½ lakhs on public works. The amount paid to the Nizam in 1887-88, on account of the Berar surplus, was Rx. 197,338, raising the total of payments under this head since the transfer of the province to British administration to Rx. 2,382,404. In addition to this, there is a large working balance of Rx. 438,961 at the credit of the province.

The gradual improvement of the financial condition of Berar is shown by the successive changes in the provincial contracts. In 1878-79, the Resident was permitted to spend for civil, public works, and railway expenditure, 54 per cent. of the provincial revenue. In 1882-83 the proportion was reduced to 52 per cent., and since 1887-88 it has stood at 50 per cent.

Mysore.

The area in square miles and the population of Mysore, according to the census of 1881, are 24,723 and 4,186,188. The population in 1876 is believed to have been 25 per cent. larger; but in the following two years of famine a million of the inhabitants are estimated to have perished. The famine also for a time crippled the resources of the State. Cultivation, and consequently the land revenue, were much reduced. The famine, moreover, cost the State 160 lakhs of rupees of actual expenditure, and left behind it a debt on this account to the Imperial Government of 80 lakhs. The period of famine had, therefore, to be followed by a time of vigorous retrenchment in all departments of the State. Such was the condition of things when the province

province was surrendered to Native rule in 1881. By the Treaty of Rendition the tribute had been fixed at 35 lakhs, instead of 24½ lakhs, as previously paid, but under the circumstances of the province the enhancement of 10½ lakhs was postponed, and under the present agreement will not take effect till 1890.

NATIVE STATES.

Meanwhile, since 1881, the province under Native rule has been very rapidly recovering from the effects of the famine. Cultivation is now more widely extended than it ever was. No report has been received of Mysore Administration since that from which the details recorded in last year's statement were obtained. The revenue of the State was there given at 102 lakhs.

Baroda, with an area of 8,570 square miles, and a population in 1881 of 2,185,005, is a Residency of the second class under the Government of India. The post of Resident in 1887-88 was occupied firstly by Colonel J. C. Berkeley, and after 31st December 1887 by Colonel Sir O. B. St. John. The State is well governed and progressive. For the year (August to July) 1886-87, which is the last for which figures are available, the receipts of the State are given at Rx. 1,522,896, and the expenditure at Rx. 1,561,881, as compared with Rx. 1,575,780 and Rx. 1,404,033 respectively in the previous year. The decline of revenue occurred mainly under land revenue, owing not to a reduction of the demand which is stated at Rx. 1,002,289, but to a smaller collection of arrears of previous years, and under customs owing to the abolition of transit duties and revision of customs tariff by the State. Over 3½ lakhs of the increased expenditure was caused by the Maharaja's tour and palace expenses, and 17 lakhs more than in 1885-86 were spent on public works and railways, the grant for public works amounting to Rx. 296,928, and for railways to Rx. 68,772. The construction of railways is being pushed on. In March 1887, 21 miles of line from Mehsana to Vadnagar were opened; an extension of eight miles to Kherala was commenced during the year 1887-88; and other projects had also been sanctioned or were under consideration. The total capital outlay on railway construction in Baroda to the end of December 1886 amounted to Rx. 134,289; in the calendar year 1886 the net profit was Rx. 3,940, or 2.93 per cent., as compared with Rx. 5,562 or 4.29 per cent. in 1885. The new State hospital at Baroda was the chief public work completed in 1886-87; progress was also made with the Baroda Waterworks, estimated to cost 33½ lakhs, and the Gaekwar's Laxmi Vilas Palace on which 22 lakhs had been spent up to the end of 1886-87. The great need of the State at present seems to be a better system of metalled roads that would be practicable at all seasons. It is noticed that Baroda contains 30 municipalities, with a yearly expenditure of Rx. 47,464, of which over Rx. 40,000 is the share of Baroda City itself. In matters of education, Baroda is advanced. At the close of 1887-88 it had 323 schools with 32,435 scholars, showing an increase of 40 schools and 5,000 scholars over the figures for 1886-87. Its hospitals and dispensaries dealt in 1886-87 with nearly a quarter of a million patients. Its military force numbers 5,000 regulars, of which over 1,500 are cavalry, and 4,000 irregulars, entailing on the State a total expenditure of 25½ lakhs a year. The judicial administration appears to be satisfactory; civil and criminal cases, however, are increasing. Relations with the Supreme Government are very friendly. Some of the other Native States, however, which touch Baroda territory, have complained of the measures taken by Baroda for safe-guarding its customs' revenue, measures which it is said do away with much of the advantage expected from the abolition of transit duties. The harvest of 1887 was a moderate one. Prices were somewhat higher for better kinds of grain, but kodra, which forms the staple food of the people, was cheaper. The Gaekwar was away from his State almost the whole of 1887-88. He returned from his visit to Europe in February 1888, but having stayed only a week at his capital, he left for the Neilgherries, and then again for Europe in June 1888. The administration of the State was in the hands of a Council, consisting of Dewan Bahadur Luxaman Jagannath, and four other members, who in important matters are in the practice of consulting the Agent to the Governor General.

The area of Kashmir, the Residency in which is also of the second class, is estimated to be 80,000 square miles, with about one and a-half million of inhabitants. The revenue exceeds Rx. 700,000, of which over Rx. 400,000 is derived from Jummoo Ladakh, and Skardo, the remainder being realised from

Kashmir.

NATIVE STATES.

from the Kashmir portion of the State. The year 1887-88 began hopefully. The Maharaja had appointed a Council of leading men in the State under the presidency of the Dewan Lachman Dass. Some progress was made with the reform of financial administration, with settlement work, public works, and other branches of State affairs. Roads were being constructed, and the railroad from Sialkot to Jummoo was commenced. But before the year closed the Council had lost vigour owing to intrigues; the Maharaja was under the influence of evil advisers, and in March 1888 unexpectedly removed Lachman Dass from the office of Dewan. At the same time he submitted to the Government of India a scheme for the reconstitution of his Council, a scheme which after the close of the year under review was sanctioned by the Supreme Government. During the year the Residency was in the charge of Mr. Trevor Chichele Pender.

Central India Agency.

The group of States included in the Central India Agency lie between the Satpura Mountains on the south, and the River Jumna on the north, stretching east and west to Benares and Rajputana. There are altogether 70 separate States, of which the total area is 75,050 square miles, and the population, according to the last census, 9,261,907. The entire Agency, which is under the charge of the Agent to the Governor General for Central India, is itself divided into eight subordinate Agencies. The most important of the States in the Agency are Gwalior, Indore, and Bhopal.

The following is a table showing the area, population, and actual or approximate revenue of the chief States in the Agency:—

State.	Area in Square Miles.	Population in 1881.	Revenue.
			Rx.
Ajaigarh	802	81,454	22,500
Alirajpur	837	56,827	10,000
Baoni	117	17,055	10,000
Barwani	1,362	56,445	14,000
Bhopal	6,873	954,901	350,927
Bijawar	974	113,285	22,500
Charkhari	787	143,015	50,000
Chhatarpur	1,160	167,700	35,500
Datia	836	182,598	100,000
Dewas (Senior)	1,878	73,940	27,700
Dewas (Junior)	1,198	68,222	32,506
Dhar	1,740	151,877	80,000
Gwalior	29,046	3,071,524	1,120,000
Indore	8,400	1,055,237	573,730
Jaora	581	108,434	72,200
Jhabua	1,336	92,938	22,500
Khilchipur	273	36,125	17,500
Kurwai	139	24,661	10,000
Nagod (Unchehra)	450	79,629	15,000
Narsingarh	623	112,427	40,000
Orchha	1,934	311,514	90,000
Panna	2,568	227,306	50,000
Rajgarh	655	117,533	35,000
Ratlam	720	87,314	130,000
Rewah	10,083	1,305,124	116,830
Sailana	114	29,723	12,140
Samthar	174	38,933	40,000

In *Gwalior* the Council of Regency, the institution of which was described in last year's Report, continued to work very satisfactorily, its relations with the Agent to the Governor General being at the same time very friendly. Reforms, described as being "of very great benefit to the general community," were carried out in the judicial department. There was a marked improvement in the police and shortly after the end of the year, under review a successful campaign was undertaken, as has already been described, against the dacoit gangs. In carrying out their more energetic public works policy, the Gwalior Council desired and were permitted to take over the charge, estimated at Rx. 18,000 a year, of the roads, 600 miles in length, in Central India, which had been constructed by the Imperial Public Works Department, and pass through Gwalior territory. The young Maharaja continues to show progress and promise in his education.

Indore affairs cannot be reported on any more favourably than last year. It was then stated that the Dewan, Ragunath Rao, owing to the attitude of the Maharaja, felt himself unable to carry out the reforms he wished, and had desired to resign. This intention he carried out, and in May 1888 he was succeeded by a new Dewan, Vinayak J. Kirtane. The land revenue reforms, shown by Dewan Raghunath Rao to be so necessary, have not been carried out. In 1887-88 the revenue was even raised beyond the 46 lakhs assessment of the previous year, but little more than 33½ lakhs could be collected, showing a yet greater proportion of arrears than in 1886-87. And these arrears are admitted to be irrecoverable. The assessment needs apparently to be reduced in this State by something like 30 per cent. The actual income of the State from all sources in 1887-88 is given at Rx. 573,730, and the expenditure at Rx. 474,950. The civil and criminal courts of the State seem to have worked satisfactorily. For three months of the year under review Maharaja Holkar was absent from his State, having proceeded to England to be present at the Queen's Jubilee. He was honoured during his stay in England by receiving the decoration of C.C.S.I.

In *Bhopal* the Minister, Colonel Ward, had even more difficulty and opposition to contend with than in the previous year. Intrigues were constantly and systematically set on foot to misrepresent his actions and aims to the Begum. Popular opinion, excepting only those classes which are normally in antagonism with law and order, was on his side. Though many reforms were introduced and the administration improved, care was taken to make no violent changes and no alterations in law or procedure. Full control over the finances and over important measures was retained by the Begum. Under her instructions the land revenue assessments in many of the Northern and Western districts, where they were found to be excessive, were revised, the demand in 434 villages having been reduced from Rx. 61,810 to Rx. 44,860, while Rx. 48,957 of arrears were remitted. Judicial administration is said to have made very great improvement. It is noticeable, however, that 40 or 50 per cent. more criminal and civil cases were instituted. The total revenue of the State was Rx. 350,927, of which Rx. 290,932 were derived from the land. The Bhopal Railway has cost 53 lakhs, and unfortunately it has not proved so remunerative as to encourage the State to extend its lines.

The important State of *Rewah* continued to be administered under the superintendence of the Political Agent by the Dewan, with the aid of a Consultative Council of Sardars. Rx. 16,500 were spent on public works, out of a total expenditure in the State of Rx. 114,650. The surplus of the year was Rx. 2,180, making the total State balance Rx. 36,820. The young Maharaja's education progresses favourably. The Chief of *Chhatarpur*, who on coming of age in August 1887 was placed in full powers in his State, acted wisely in retaining the Dewan, who had been so successfully managing affairs under Agency superintendence. The expenditure of the year in this State was Rx. 47,450, including Rx. 14,100 spent on public works; the income was only Rx. 35,500. The balance at the end of the year, notwithstanding, stood at Rx. 75,800. Other of the more important States in the Agency, whose administrations are favourably reported on, are *Charkhari*, which is under the management of the able father of the young Chief, and has a balance of five lakhs invested in Government funds; *Rutlam*, the Raja

NATIVE STATES.

Raja of which was decorated in the year under review with a K.C.I.E., an event which he celebrated by remitting Rs. 5,000 of revenue due from his subjects; and *Jaora*, in which the old disorders have been got rid of, and judicial administration especially has been improved, and which in 1887-88 succeeded in paying off three out of 13 lakhs of debt that were owing by the State. *Dhar* affairs were also satisfactory; the Maharaja has been paying more attention to the management of his State. On the other hand, the administration in *Bijawar*, *Nagod*, and *Jhabua* seems to have been anything but good. The Chief of *Bijawar* had so often left unfulfilled his assurances of wholesale reform, and, quarrelling with his Dewan, had so mismanaged his State, that the displeasure of the Government of India had to be brought home to him by a withdrawal of the high criminal powers he had been hitherto allowed to exercise. *Nagod* is the worst governed in the Bundelkhand group of Central India States; the Chief neglects his duties, and is reckless in his expenditure, while the salaries of his officials remain unpaid, and the State debts grow apace. Troubles in *Jhabua* are of a somewhat similar nature under a Raja of like character. Intrigues have prevailed so far that the old Dewan, who is described as able, energetic, and loyal, was dismissed to give place to a Gujarati wakil. Other States, such as *Rajgarh*, have also been suffering from intrigues designed to set the Chief against his responsible Minister. In others, again, quarrels between the Chief and his relations are the principal cause of troubles and disorders. At *Ujjain* a serious affray arose out of the religious rivalry of the Hindus and Muhammadans during the Mohurram Festival. The *Bhils* generally were quiet and contented, notwithstanding some distress from a bad season, and in parts from the denudation of forests. Throughout the Agency considerable difficulty was caused by high prices, rising in places almost to famine rates, consequent on the excessive and irregular rainfall of the year. Various measures were taken by several States to deal with the scarcity. By many, the export of grain was prohibited, while in others remissions of revenue were granted, and seed grain supplied to the distressed cultivators. Irrigation was naturally much in request, and the demands on the Betwa Canal were much larger than in previous years. The Bundelkhand States, which are well supplied with tanks and depend largely on irrigated cultivation, fared best in the general scarcity.

Education appears to be not so generally supported in this Agency as it ought to be. The returns, however, are very incomplete. Approximately there may be said to be 12 high schools, 23 other secondary schools, and 340 primary schools, of which 49 are private institutions and 21 girl schools. Of these totals, two high schools, 16 secondary, and 89 primary schools are in Gwalior, which pays more attention to education than do the other States of the Agency. Of the smaller States, Charkhari is favourably mentioned for its educational policy. On the other hand, but for its very efficient girl school, Bhopal is very backward. The schools established for the education of the Chiefs and Nobles in Central India, of which the most important is the Residency College at Indore, do not appear to flourish as they deserve.

Rajputana Agency.

The States of the Rajputana Agency, of which there are 19 having direct relations with the Government of India, the rest being feudatory to other Native States, cover an area of 129,750 square miles, lying to the west of the Central India States. Their population in 1881 was 10,268,892. The following table shows the relative importance and financial condition of the 19 principal States of the Agency :—

NAME OF STATE.	Area in Square Miles.	Population in 1881.	Revenue for 1887-88.	Expenditure for 1887-88.	Expenditure on Public Works.	Balance or Debts of State at end of Year, and Remarks.	NATIVE STATES.
			Rx.	Rx.	Rx.		
Alwar -	3,024	682,925	261,382	208,862	18,734	Balance Rx. 439,003.	
Banswara -	500	152,054	18,417	20,255	-	In considerable debt.	
Bhartpur -	1,974	645,540	264,253	257,575	15,619	-	
Bikanir -	22,340	509,021	161,207	134,015	-	Balance, 20 lakhs.	
Bundi -	2,300	254,701	67,634	56,367	-	-	
Dholpur -	1,200	249,657	102,451	98,749	-	Debts amounting to Rx. 158,959. They are being paid off.	
Dungarpur -	1,000	153,331	Approximately 20,000	Accounts not given	-	Management of State is satisfactory.	
Jaipur -	14,465	2,534,357	603,132	557,876	105,754	-	
Jaismir -	16,447	108,143	14,000	17,300	-	-	
Jhalawar -	2,694	340,488	148,888	147,401	7,019	Balance, Rx. 58,866.	
Jodhpur (Marwar) -	37,000	1,750,403	406,540	330,011	59,949	-	
Karauli -	1,208	148,670	Approximately 50,000	Accounts not made up	-	Debt outstanding, Rx. 5,650, expected to be cleared off in 1888-89.	
Kishengarh -	724	112,633	33,723	40,647	-	Balance, Rx. 16,796.	
Kotah -	3,797	517,275	223,613	201,499	31,693	Balance, Rx. 77,904.	
Partabgarh -	1,460	79,568	27,130	26,895	-	Balance, Rx. 2,955.	
Shahpura -	400	51,750	24,677	24,330	3,511	Balance, Rx. 4,689.	
Sirohi -	3,020	142,903	18,500	Not stated.	-	-	
Tonk -	2,509	338,029	122,878	117,239	3,269	Debts amount to 12 lakhs. They are being paid off at rate of 1½ lakhs a year.	
Udaipur (Meywar) -	12,670	1,494,220	260,000	240,000	25,000	-	

The "Tyag Conference," as it has been called, was the most remarkable event of the year in the Agency. "Tyag" means the largess paid by the father of the bridegroom to the Charans, Bhats, and Dholis, who attend the wedding ceremonies of Rajputs. The Conference was intended to devise means for reducing excessive expenditure at marriage ceremonies and at funeral feasts. At the suggestion of the Governor General's Agent, and with the co-operation of the Chiefs, a meeting was held of representatives, consisting of an official, a jaghirdar, and a charan from almost every State in Rajputana. Rules were framed not only for regulating marriage expenses, but also for limiting the ages at which marriages should be contracted, and for other cognate matters. These rules were agreed to, and signed by the members of the Conference, and having been widely distributed and influentially supported in the various States, have been enforced to the prevention of much waste of money, and to the general advantage of the Rajputs. There is a prospect of the rules being extended to the States of other Agencies besides that of Rajputana.

The only ruler of importance, who died in this Agency during 1887-88, was the Maharaja of Bikanir, who died childless at the age of 33. The young brother and adopted son of the late Maharaja, a boy seven years old, was recognised as his successor. There was some difficulty in finding and securing all the treasure, amounting to about 20 lakhs, which had been left by the late Maharaja. With this balance, and an anticipated yearly surplus of three or four lakhs, the administration of the State which during the Maharaja's minority will be in the hands of the Political Agent, aided by a Council of Regency, should be progressive and successful.

The administration of Jhalawar likewise passed into the charge of the Political Superintendent assisted by a Council; not, however, in consequence of the death, but owing to the misconduct of the Maharaja Rana. It was

NATIVE STATES.

found that during the two years of this Chief's rule, the courts had ceased to command the confidence of the people; an idea had got abroad, not without foundation, not only that many of the presiding officers were incompetent, but also that justice was to be swayed by the payment of money, or by personal influence; receipts from land revenue had been reduced owing to mismanagement and by general confusion in the department; revenue officials, high and low, were bewildered; records mislaid, tampered with, or falsely prepared; and the general standard of morality deteriorated; the efficiency of the police had also been lessened by several ill-considered promotions and punishments. The misgovernment had been largely due to some of the Maharaj Rana's mischievous advisers, who were consequently excluded from the reformed Council. Suitable allowances have been made to the Chief, who is relegated to the position he occupied when a minor. The finances of the State are in a satisfactory condition.

Most of the rulers of the Rajputana States have earned the praise of the Governor General's Agent by the character of their rule. Among these is the old Maharao Raja of *Bundi*, still hale and vigorous, and attending as carefully as ever to every detail of administration, though now allowing some share of the work of the State to his eldest son. The Chief of *Bhartpur* governs his State himself without a prime minister. The rulers of *Ahear*, *Udaipur*, *Jodhpur*, and *Jaipur*, of whom the last named was during the year created a Knight Grand Commander of the Order of the Star of India, deserve praise for the continued successful administration of their territories. In *Udaipur* it is noticed that a new revenue settlement is being introduced; in *Jaipur* the principal measures were intended to reform the judicial departments, to reclaim the criminal tribe of Minas, and to prevent illicit opium traffic with the Punjab. *Kishengurh* also shows progress. The year's record includes the reform of accounts and of the administration of justice, the construction of irrigation works, and the improvement of the methods of agriculture. The Maharaja of *Karauli* was granted in June 1887 an increase of his powers, which he has since exercised in the interests of his subjects; his State is only now freeing itself from a weight of debt which has long been on it. The management of *Sirohi* has also been improving of late years, thanks in large measure to the Rao's efforts. Even in those States, such as *Banswara*, *Tonk*, and *Dholpur*, where there are serious financial embarrassments, there is generally improvement. There is a well-selected Council established in *Tonk*, and thanks to its conduct of business the State debt has been reduced from 15½ to 12½ lakhs. *Dholpur*, with which special arrangements, including a loan, had to be made by Government, has also a debt of 15 lakhs, but this is expected to be paid off in 12 years.

Some of the difficulties of the year have been due to disputes between the rulers of the States and their powerful nobles and feudatories. For instance, the Kapran Chief, who is subject to *Bundi*, assumed independence in all matters beyond the payment of tribute. Strong measures will possibly have to be taken if he does not give up his claims to levy customs on his won account, to adopt insignia, to exercise separate jurisdiction, and to exclude *Bundi* coinage. A dispute between *Kishengarh* and its subject the Raja of *Futtehgarh* is not so serious, being concerned with points of ceremony, and is in the way to settlement. The indebted condition of the *Khandans* in *Tonk* and of certain jaghirdars in *Shahpura*, has also been the cause of some trouble.

As in Central India, so in parts of Rajputana, the year 1887-88 was one of considerable distress and scarcity. Those living on fixed salaries, such as State sepoys and serving men, are said to have suffered most. A general complaint arose that stocks had been unduly depleted by exports to Europe. The States affected variously attempted to deal with the necessities of the time. *Bundi* prohibited the export of grain. *Tonk* relieved distress among its State servants by retailing grain below market price, and so beating down the combination of grain dealers. *Shahpura* opened its State stores to supply food generally at low rates, and to provide seed corn to cultivators. At the close of the year 1887-88 the distress was seen to be passing away.

The

The expenditure of some of the Rajputana States on public works has been shown in the statement on page 169. In *Jhullawar* expenditure was greatly reduced during the year 1887-88. Considerable sums were expended on the construction of public halls, palaces, hospitals and schools in *Udaipur*, *Jodhpur*, *Jaipur*, *Kotah*, and *Udaipur*. Irrigation works received a larger share of attention. The season was one which emphasised their importance; and those already constructed have, on the whole, proved very successful. The revenue derived by *Jaipur* from its irrigation works, between 1868 and the end of 1887-88, amounted to Rx. 126,029, or 41·47 per cent. of the total amount of capital expended during the same period. The expenditure of the year was Rx. 20,741. *Udaipur* expended Rx. 9,594 during the year on irrigation. One of the tanks it opened yielded in the first year Rx. 500, or 38 per cent. on its total cost of Rx. 1,300. The *Parbati* Canal in *Kotah*, however, has not as yet proved a financial success; but the demand for water from it is steadily increasing. The *Jodhpur* Railway continues to be worked very successfully; the net profit derived from it in 1887-88 was Rx. 20,850, or about 9 per cent. on its capital outlay. The working expenses amounted to Rx. 15,180, and the new capital outlay to Rx. 11,318. No other State in Rajputana has its railway. In *Kotah*, however, during the year a trial survey was undertaken for a railway, from *Jaora* on the Rajputana Malwa line to pass through the centre of *Haroti* and the north of *Kotah* to link eventually with the *Neemuch* and *Holkar* line. The communications of *Abu* with the railway were improved during the year by completing the bridge over the *Banas* river, and by metalling the portion of the *Abu* cart road that lies in the plain.

Education in the Rajputana States is said to be progressing fairly well; *Jaipur* and *Alwar* take the lead in all educational matters. It was in those two States alone that female education was able to make any advance. The *Mayo* College for the education of young chiefs and nobles continues to be successfully managed.

The Feudatory States of Bengal are *Kuch Behar*, *Hill Tipperah*, and the Tributary States or *Mahals* of *Orissa* and *Chota Nagpur*; to which also may be added *Sikkim*, which is referred to in a later paragraph. Relations with, and affairs in, *Kuch Behar* were satisfactory during the year 1887-88. *Hill Tipperah* enjoyed a favourable season, the crops of cotton and oilseeds being particularly good. The export trade is estimated to have increased from an average for the three previous years of Rx. 60,300 to Rx. 78,200; and the State income from an average of Rx. 23,880 to Rx. 28,991. There is some dissatisfaction with the *Maharaja's* administration, who, notwithstanding the increase of his revenue, has done so little for the prosperity of his subjects. The abolition of the rule preventing British subjects from acquiring occupancy rights in the State has not had the anticipated effect of bringing an influx of immigrants, partly, perhaps, because there is no great want of arable lands in the bordering British districts. The administration of justice suffers from the scant and irregular pay of the police, and from inefficiency in the lower courts, the sentences of which are largely reversed on appeal, to the extent in 1887-88 of 34 cases out of 79 appealed against. Criminal cases were somewhat fewer, but civil cases increased in number from 322 to 323 in consequence of the operations of a new Landlord and Tenant Act in the State.

* Of *Kuch Behar* there is nothing of note to record; its revenue is approximately stated at Rx. 132,000.

The Tributary States of *Orissa* suffered severely from a deficient rainfall and consequent failure of crops. The harvests of both 1886-87 and 1887-88 were short; the poorer classes only tided over the worst months by resorting to the use of edible roots and jungle produce, to which indeed they are not unaccustomed, and to constant importation of food grains. The mango crop was fortunately abundant. There was a rise in prices in some, but not in all the States. In *Mohurbhunj* and in *Narsingpur* prices fell. The great difference of prices in different States affords an illustration of the importance of cheap and easy means of communication for the prevention of scarcity. Easy communication would have prevented rice costing a rupee for 0·85. 13 seers

NATIVE STATES.

13 seers in Angal, while a rupee would buy 26 seers in the Khondmals. Some progress has been made in the construction of roads, but more communications are required, especially in Athgarh and Nilgiri. Nor until such highways as there are, are bridged and metalled will they be passable all the year round. The season was not unfavourable to health in these States. Vaccination was not popular. The superstition of the people is said to be against it; moreover, to overcome the prejudices of the people, it will be necessary to ensure a greater success in the operations of the Vaccination Department than has lately been attending them, at least in the Khondmals. It is noticed that while the number of criminal cases increased, that of civil and revenue cases fell from 16,492 to 11,073. This decline is due to the introduction in 1886-87 of the rules of limitation in Narsingpur and to other special causes. The only change of administration in this group of States was caused by the resumption of the charge of his territories by the Raja of Nilgiri on his recovering his reason and powers of speech. Mohurbhung, the largest of the Orissa States, has been under Government management since 1882, Dhenkanal since 1877, Baramba since 1881, and Narsingpur since 1884. In all these States, and in Angal, the revenue has been steadily increasing, and debts have been paid off. To judge from the frequent complaints raised, the administration of Athgarh, Khandpara, and Daspath is not wholly satisfactory. As the population have shown a tendency to increased consumption of liquor, Government is considering the best means of discouraging or suppressing the cultivation of ganja. Forest conservancy is said to be well attended to; and education progresses satisfactorily.

Of the Chiefs of the *Chota Nagpore States*, the Maharaja of Singooja and the Raja of Jushpore manage their territories to the approbation of the Bengal government. The Raja of Bonai on the other hand, who is wanting in tact and generosity, is unpopular. This unpopularity, which had been expressing itself in a desire on the part of the inhabitants for British rule, culminated in some serious disturbances caused by the Gond settlers in the State. There was insufficiency of rain in the year under review, and poor harvests in these States; but public health was fair, and the material condition of the people unchanged. Education, always backward in these parts, showed anything but progress.

North-West
Provinces.

The States of *Rampur* (area 941 square miles, population 541,014) and *Tehri* (area 4,801 square miles, population 199,836) are the only ones under the charge of the Government of the North-West Provinces. The affairs of both States required constant attention during 1887-88. In Rampur the bad health of the Ruler necessitated the establishment under the Nawab's presidency of a Council of Administration. There was less friction than hitherto between the Nawab and members of his family. The revenue is given at Rx. 218,879, or 20 per cent. more than in 1886-87; the expenditure, including $1\frac{1}{2}$ lakhs spent on public works, decreased by a lakh and a-half to Rx. 145,380. The surplus, therefore, exceeds seven lakhs. A larger outlay on public works is in contemplation. In *Tehri* arrangements had to be made for the administration of the State during the Raja's minority. At first the late Raja's brother was appointed Regent, but his conduct caused discontent; and before the close of the year it was necessary to remove him, and to put in his place as President of the Council a widow of the late Raja, who is a lady of considerable ability. The revenue of *Tehri* is given at Rx. 14,219.

PUNJAB.

The number of Native States subordinate to the Punjab Government is 34. They are grouped as follows: Patiala, Bahawalpur, Jind, and Nabha, under the Lieutenant Governor; Kapurthalla, Faridkot, Mandhi, and Suket, controlled by the Commissioner of Jullunder; Chamba, by the Commissioner of Lahore, and the rest by the Commissioner of Delhi. The following table indicates the relative importance of the principal States.

NATIVE STATES.

STATE.	Area in Square Miles.	Population in 1881.	Approximate Revenue.
			Rx.
Patiala	5,419	1,467,433	478,567
Jind	2,259	249,862	59,928
Nabha	928	261,824	70,000
Bahawalpur	17,285	373,494	160,000
Kapurthala	620	253,000	105,000
Faridkot	624	97,034	30,000
Mandhi	1,200	146,631	18,520
Suket	474	53,484	10,000
Chamba	3,092	115,773	25,000
Maler Kotla	164	71,051	10,000
Kalsia	160	67,708	19,352
And 23 others, including 20 Simla Hill States, of which the most im- portant are—			
Sirmur (Nahun)	1,045	112,371	21,000
Kahlur (Bilaspur)	448	86,546	10,000

Kapurthala and *Maler Kotla* are for the present under Government management. The former, under the vigorous and popular rule of an English superintendent, enjoys a yearly surplus of two lakhs to add to its already large balance of 17 lakhs. The estates in Oudh owned by the Kapurthala State have been well managed, though hardly generously enough towards the tenants. A proposal to curtail expenditure on public works in these estates has been disapproved of by the Commissioner. Among the Hill States *Sirmur* (*Nahun*) is again marked out for praise. The most important question now under consideration which affects these States is that of forest conservancy. Drawing much of their immediate resources from their forests, the Rulers of these States have been tempted to allow the hills to be denuded far too quickly. For instance, the Rana of the petty State of *Balsan* has, it is said, in his first year of power, "sold what practically represents the whole surplus production over the quantity of deodár timber required for local consumption, which has been accumulating in his forests for considerably over a hundred years." Without protective measures it is feared that fuel, grazing, and springs will gradually disappear, and the arable land ruined by erosion of the hill sides. Demarcation and preservation of forests are now being undertaken.

Suket is the State which causes most anxiety in the Punjab. The Raja has been guilty of some oppression and tyranny, and is generally hard and exacting. He has been warned to amend his administration; it is doubtful whether stringent measures will not have to be adopted to induce him to improve his ways. A single act of the Raja of *Faridkot*, in ordering the hands of a criminal under sentence of death to be cut off, has also incurred the displeasure of Government; otherwise his administration was efficient. The Raja of *Jind* having died in March 1887, he was succeeded by a grandson, six years old, and a Council of Regency was established for the government of the State. This is in accordance with the guarantee given to the Phulkián States in 1858. *Patiala*, which continues to be well governed, suffered from floods in the year under review. Having met with one disastrous flood in 1887, it decided to carry out a scheme of protection which is estimated to cost over two lakhs; but before the work had sufficiently advanced to act as a defence, a second disastrous flood occurred in which 700 houses are said to have been washed away in the capital. It is to be hoped that a repetition of such a catastrophe will now be prevented. A railway from *Patiala* to *Bhatinda* was commenced in the year under review; and the *Sirhind Canal* being

NATIVE STATES.

being completed, the States of Patiala, Jind, and Nabha took over the management of the distributaries in their territories. The Jind distributaries of the Western Jumna Canal were also taken over by that State. All the important Punjab States were conspicuous for their loyal offers of troops and money towards the defence of the Empire. It will be for the Report for 1888-89 to state how far these offers were accepted, and how it is proposed to utilise the resources of these States.

CENTRAL PROVINCES.

The tributes of the 15 Feudatory States connected with the Central Provinces, having been fixed for a period of 20 years in 1867-68, came in for revision in the year under review. They were accordingly fixed for a further period of 20 years at reasonably enhanced amounts, making up a total of about Rx. 23,000. Of the 15 States, six are under Government management in consequence of the minority or gross misrule of the Chiefs, and in five others it has been found necessary, in order to check serious misgovernment, to call on the Chiefs to appoint competent Dewans, who should be responsible for the management. The unsatisfactory fact thus appears that only four Chiefs have been thought fit to govern on their own responsibility; of these four, the chief of *Bamra* is the only one who really seems to try to govern well. The interference of Government has undoubtedly been beneficial to the people. Revenue administration has been improved; the hereditary village lessees have been secured, by a definition of their rights, from arbitrary exactions or ejections; and suitors now find justice more impartial. The Chiefs as well as the people are learning to understand the aims of the Government, viz.: That injustice and oppression will not be allowed, and that the interests of large populations will not be committed to incompetent or unprincipled rulers. In consequence the Chiefs are taking to have their sons educated and fitted for their future position, and to seek the advice of Government. At the same time the enlightened administration that is being established under Government management or supervision, will be a standing protest to the selfish policy hitherto so characteristic of these Feudatory States under which the State revenues have been squandered on personal gratification instead of being devoted to public improvements and to the maintenance of well-organised public establishments.

MADRAS.

The administration of the Native States of the Madras Presidency causes little anxiety, and calls for little interference on the part of Government. The principal States are *Travancore*, with an income of Rx. 666,916, and a balance at the end of 1887-88 of Rx. 580,671; *Cochin*, with an income of Rx. 152,809, and a balance of Rx. 378,439; *Pudukota*, with an income of Rx. 60,982, and a balance of Rx. 68,049; and *Banganapalle*, which is paying off the debt it owes to Government by yearly instalments from its income of Rx. 20,774. *Travancore*, *Cochin*, and *Pudukota* are all being urged by the Madras Government to spend their funds more freely on public works; at present the amounts of their expenditure in this direction are, respectively, 10, 3½, and 1½ lakhs. The season of 1887-88 was not very favourable; and in *Pudukota* it was particularly unhealthy. Generally speaking, these States are well administered. Education progresses; in *Cochin*, however, it is still considered to be very backward. The chief need of reform exists in the judicial administration, the working of the magistracies in *Travancore*, and of the Civil Courts in *Cochin*, being by no means satisfactory. The Anjikaimal Zillah Court in *Cochin* is again the object of severe criticism; its arrears are so large that a suit in it lasts on the average nearly two years. There was a diminution in the number of civil suits in these States, some increase in criminal cases in *Cochin* and *Banganapalle*, and a very large increase, 47 per cent., in criminal cases in *Pudukota*. The increase in this State was due largely to the creation of a new crime under the recent Salt law, under which 391 persons have been charged since it came into force in January 1888; largely also to the increasing prevalence of false accusations; out of 4,451 persons charged for other offences than those under the Salt laws, only 774 were actually convicted. This matter is receiving attention. The new Salt law referred to was rather severely enforced; only 26 of the persons charged were acquitted, and over 350 found guilty and condemned, mostly to fines or imprisonment. The law itself, which is styled "The Pudukota Earth Salt Suppression Regulation," was the outcome of arrangements with the Madras Government by which Pudukota receives compensation of Rx. 4,800 a year on condition of prohibiting and preventing the manufacture of

of earth salt and of abolishing the tax on the houses of the poor. The NATIVE STATES. object of the Regulation is to introduce into the State the system prevailing in the British districts of the Presidency, the house tax being at the same time remitted by way of compensatory relief to the population. The law was extremely unpopular, all the more so as at the very time when the arrangements were about to come into force the excise duty on British salt happened to be raised 25 per cent. It may be some time before the people are quite reconciled to the prohibition of their cheap and easy local manufacture of earth salt.

• Of the other States in the Southern Presidency there is little to record. Affairs in the *Jeypore* estate are said to have been unsatisfactory. To deal with the prevailing dishonesty and oppression of the low-paid officials, the Raja has been urged to appoint a more experienced and capable minister. The liquidation of the debts of the *Sandur* State is proceeding satisfactorily.

Of the numerous Native States subordinate to the Bombay Presidency, BOMBAY. the most important are those in the Northern Division, including Cutch, Kathiawar, and the States of the Palanpur, Mahi Kantha, Rewa Kantha, and Surat Agencies. In the Southern Division Kolhapur is the chief State, while Sangli, Savantvadi and the Southern Mahratta Jaghirs also occupy considerable areas. In the Central Division the Satara Jaghirs and the Dang States of Khandesh, and in Sind Khairpur, though considerable in extent, have a scanty population. Last of all there is the Settlement of Aden with the subordinate Somali coast, which is immediately administered by the Bombay Government. The following statement gives details of the area, population, and revenue of the Bombay Native States according to the groups into which they are divided :—

N A M E.	Area in Square Miles.	Population according to Census of 1881.	Gross Revenue
GROUP 1—NORTH GUJARAT :			Rx.
Cutch - - - - -	6,500	512,084	194,903
Palanpur-Radhanpur Group (11 States) - - - - -	7,775	576,478	125,000
Mahi Kantha (64 States) - - - - -	9,300	517,485	115,084
Kathiawar (188 States) - - - - -	20,559	2,343,899	1,461,460
Cambay - - - - -	350	86,074	60,837
Rewa Kantha (61 States) - - - - -	4,837	543,452	207,075
Narukot - - - - -	143	6,440	684
GROUP 2—SOUTH GUJARAT :			
Dharampur - - - - -	794	101,289	37,455
Bansda - - - - -	215	31,807	20,276
Sachin - - - - -	42	18,036	15,941
GROUP 3 NORTH KONKAN :			
Khandesh Political Agency (22 States) - - - - -	3,840	60,270	10,670
Jawhar - - - - -	534	48,556	9,257
GROUP 4—SOUTH KONKAN :			
Janjira - - - - -	324	76,361	43,192
Savantvadi - - - - -	926	174,433	42,327
GROUP 5—DEKKHAN :			
Satara Feudatories (5) - - - - -	3,314	318,687	94,088
Akalkot - - - - -	498	58,040	26,160
Kolhapur (with 4 Feudatories) - - - - -	2,816	800,189	* 312,505
GROUP 6—SOUTHERN MARATHA STATES :			
Southern Maratha Feudatories (7) - - - - -	1,836	326,921	159,052
Sangli - - - - -	1,083	196,832	109,710
Savanur - - - - -	70	14,763	7,374
GROUP 7—SIND :			
Khairpur - - - - -	6,109	129,153	69,417
GROUP 8—Aden - - - - -	† 70	34,860	† 17,453
Somali Coast - - - - -	—	—	18,794
GRAND TOTAL (372 States) - - - - -	71,935	6,976,109	3,158,714

* Inclusive of feudatories.

† Exclusive of Perim, the area of which is five square miles.

† Gross Imperial revenue, Rx. 4,229.

NATIVE STATES.

The 324 States of the Kathiawar, Palanpur, Mahi Kantha, and Rewa Kantha groups are divided into seven classes, according to the extent of the jurisdiction allowed to be exercised by the Chiefs. The State of *Porbandar*, now under a Government Administrator, was re-admitted into the first class of Kathiawar States, from which class it had been degraded in 1869, on account of the gross misgovernment of its ruler; *Gondal* was raised to the first class in the year under review, on account of the enlightened administration of its Chief. Speaking generally of the progress of the Bombay Native States, which is most advanced in Bhavnagar in the north, and Kohlapur in the south, it is reported that under the influence of British administration in the States whose Chiefs are either minors or incapacitated for rule, great improvements have been introduced. Elsewhere the most potent influence for reform consists in the employment by the Chiefs of Native officials trained in the British service, who carry with them to foreign service the traditions and principles of British administration. Improved communications have enabled the Chiefs to travel, and opened their eyes to the advantages of change. But in very few States is the press or the formation of associations encouraged; and even when under a temporary British administration newspapers have begun their career it is soon interrupted by a reversion to Native rule. In one respect, namely, the emancipation of trade from transit duties, there has been a steady advance along the whole line of Native States. Much still remains to be done, but the year under report was one of fair progress.

In the northern group of States, excepting those of the Mahi Kantha Agency, the year was one of deficient crops and partial scarcity. While the Rao of *Cutch* was absent in England for the occasion of the Queen's Jubilee, affairs in his State were conducted by the Dewan. The scant unseasonable rainfall of the year caused a failure of crops, and scarcity, especially in the eastern districts. With scarcity came an increase of crime and heavier police work, and a diminution of the number of scholars under instruction. Relief measures, mainly in the form of advances to cultivators, were adopted, and cost the State Rx. 1,750. This relief was, however, but a partial compensation for the pressure, caused by the levy of import duties. It is observed that while so many other States in India have made sacrifices in the interests of free trade, Cutch has gained increased Customs revenue to the amount of Rx. 2,500, mainly by taxing food supplies in a year of scarcity. The management of the finances of the State is not satisfactory. There is no proper budget system, though its introduction has been promised. The revenue of the year 1887-88, amounted to Rx. 194,903, and the ordinary expenditure to Rx. 144,069; but outside this sum there was extraordinary outlay not brought to account in the year, amounting to Rx. 130,642. The greater part of this outlay consisted of loans to individuals, and of expenditure (Rx. 74,188) on the Rao's visits to England and Bombay. The ordinary expenditure also included Rx. 13,000 on account of the Rao's private expenditure, and Rx. 10,000 for the State stables and conveyances. Rx. 21,436 were spent on public works, the most important of which were, the Mandvi breakwater, and certain irrigation and water works. The State balances appear to have been reduced during the year from Rx. 125,817 to Rx. 46,010. The six municipalities in the State conducted their affairs with economy and success.

As in Cutch, so in the States of the *Palanpur* Superintendency, there was an increase of crime resulting from distress. The same cause accounts for a deficit in the finances of Palanpur. In anticipation of new rules laying down a period of limitation, a large number of civil suits were instituted in Palanpur during the year, and, consequently, the civil work of the Superintendency shows a heavy list of arrears. It is noticed that the custom of obtaining forced labour has now been, to a great extent, put an end to in *Palanpur* and *Radhanpur*, the two chief States of this group. The police have been working with more success in these States, and have been able to capture some notorious Miana outlaws. There was an outbreak of cholera in *Tharad*, otherwise the public health was fair. Vaccination progresses. There was some slight advance in education. The chief public works were the Victoria Jubilee Institutes in *Palanpur* and *Radhanpur*, which were opened during the year. Palanpur, with four to five lakhs of revenue, and
Radhanpur

Radhanpuri, with five to six lakhs, are the only first-class States in this NATIVE STATES group.

In the *Mahi Kantha* Agency the chief and only first-class State is *Idar*, which has a revenue of Rx. 59,306. Here, though there was no severe scarcity, the year was conspicuous for a very marked increase of serious crime, viz., of dacoities from 26 to 50, and of robberies from 40 to 48. As property to the value of Rs. 12,772 was plundered, and as only six out of 17 persons said to have been concerned in the dacoities, and only 11 out of 143 concerned in the robberies were convicted, the criminals must have found their operations highly profitable. Neither the Agency nor the Native States can be congratulated on their police administration; but steps have been taken, particularly in *Idar*, to improve matters. One satisfactory fact is that order was well preserved on the frontier, where *Idar* marches with *Meywar*, notwithstanding its *Bhil* population. Moreover, some outlaw *Bhils* who had murdered the *Thakor* of *Uniora* in *Meywar*, and had taken refuge in the *Mahi Kantha*, were captured during the year by the *Idar* police. The work of civilizing the *Bhils* is going on. Much credit is due to the representative of the Church Missionary Society, and to the educational institutions he has established. His original school at *Jusaria* had 61 pupils, of whom 39 were *Bhils*. So eager were these for education that, it is said, several came from such distances that they were obliged to bring food for four or five days with them, and when their supply was exhausted, they would ask for two days' leave to go home to get more. The work is also appreciated by the Native Chiefs. One of the *Idar* *Bhumias* has given a site, and contributed largely towards a second school, with dispensary and mission buildings attached, which has now been opened at *Biluria*; and a third in like manner is to be opened by the *Idar* State, and placed under the same management. Limitation rules for civil suits were introduced in the Agency Courts and in the States under Agency management, and in consequence, the number of civil decrees executed rose to 3,030, or treble the number in 1886-87, and six times what it was in 1885-86. The self-managed States of the Agency, *Mansa* excepted, have not shown a disposition to accept the rules in their courts. Of the smaller States of the Agency, *Mansa* is said to be well administered; but the *Thakor* is unfortunately pecuniarily embarrassed by the legal expenses he incurred in defeating a fraudulent claim to the succession of the State. The *Rawalji* of *Malpur*, on the other hand, is a bad ruler, and the *Rao* of *Pol's* administration is still crude in the extreme.

The abolition of transit duties in the agency have not so distinctly benefited the local traders as was expected. It is said that restrictions adopted by the *Baroda* authorities on its frontier have to some extent nullified its concessions in the matter of transit duties.

The areas, population, revenue, &c. of the seven first-class States in *Kathiawar* are as follows:—

NAME of STATE.	Area in Square Miles.	Population in 1881.	Revenue.	Expenditure on Public Works.	Number of Schools in the State.	
					For Boys.	For Girls.
<i>Baranagar</i>	2,860	400,323	Rx. 347,800	Rx. 47,500	126	13
<i>Amavanagar</i>	3,791	316,147	235,009	17,343	77	10
<i>Amunagar</i>	3,206	387,499	190,000	12,834	108	9
<i>Gondal</i>	1,025	135,604	120,000	6,915	70	5
<i>Morvi</i>	822	89,964	101,288	6,204	24	2
<i>Porbandar</i>	637	71,072	70,000	30,000	28	1
<i>Dhrangadhra</i>	1,157	99,686	78,000	12,004	37	3

It has already been stated that *Gondal* was for the first time raised, and *Porbandar* restored, to the position of first-class States during the year under review.

NATIVE STATES.

The more important Chiefs, especially Bhavnagar, Junagad, Gondal, and Morvi are, according to their powers, utilising their resources in the interests of their subjects. Perhaps, the best governed of all is *Bhavnagar*. During the year 1887-88, the Thakor Sahib initiated an important reform by dividing the various departments of his State among four Councillors, each responsible to the Chief, and inaugurated another by maturing a scheme of local self-government for his capital city. In the State of *Porbandar* also the year was one of great progress under the administration of a British officer; a stimulus was given to trade by the expenditure of large sums on useful public works, and a marked improvement was effected in the whole machinery of Government. The long standing disputes between, firstly, the Maiyas and the *Junagad* State, and, secondly, the Jivaidars of Dumaná and the *Dhrangadra* State were amicably settled by the commutation of the service liability of the Maiyas and Jivaidars for a surrender of part of their lands. The turbulent Miánas of the *Máliu* State will, it is hoped, be pacified by the adoption of a scheme for their transfer to the jurisdiction of the Agency, and for the settlement of their debts. The value of the sea-borne trade of the province advanced from 380½ to 386½ lakhs of rupees, the increase being due to increased importations of rice and other grains, and especially noticeable at *Porbandar* and *Bhavnagar*. The expenditure on public works advanced from 16½ to 18½ lakhs, the chief works in progress or completed during 1887-88 being the Sámaldás College and the dredging of the creek at *Bhavnagar*, the water-supply works at *Bhavnagar* and *Dhrangadra*, the bridge over the river at *Jamnagar*, and the light-house and bridges at *Porbandar*. The number of medical institutions for the relief of the suffering increased from 77 to 81, and the number of patients treated therein from 402,893 to 434,526, the institutions being popular everywhere, and supplied by the States with medicines on a liberal scale. There was an increase of 40 in the number of educational institutions, and of 3,435 in that of pupils. Apart from the detection and punishment of serious crime of the nature of robberies and dacoities, the administration of the police showed an improvement.

While these facts bespeak an enlightened and progressive administration maintained notwithstanding a diminution of the land revenue of the States owing to the unfavourable nature of the season, it is to be noted that, on the other hand, the public tranquillity, disturbed during the three previous years, was not only not restored, but the area of disorder spread from *Junagad* to *Gondal*, *Narvanagar* and elsewhere. There were 118 robberies and 57 dacoities against 117 and 78 respectively in 1886-87, and they resulted in the removal or destruction of property worth Rx. 11,436, against Rx. 9,198, the murder of 17 persons against 11, the wounding of 45 against 61, and the carrying off of 29 hostages against 24. While 875 persons were concerned in these outrages, only 217 were captured, and 63 convicted. Eight proclaimed outlaws remained at large. The Imperial Mail was robbed on one and stopped on three other occasions. In consideration of the very serious state of affairs, Government lent to the Chiefs of the three States named above the services of a British officer, to organize their police and suppress the formidable disorders which had remained unchecked so long; and the result has been the capture of several dacoits and the destruction of others who endeavoured to evade capture, since the close of the year. It is noticeable that the only important state which was comparatively free from the prevailing disorder was the British administered State of *Porbandar*, where all departments are said to have co-operated for the maintenance of order. In this State it will be observed that the expenditure on public works bears a large proportion to the total estimated revenue of the year, but it must be remembered that there is a large balance in hand of Rx. 300,000, which had been hoarded by the late Rana, while on the other hand, absolutely nothing had been spent on public works under the late régime, and everything in the shape of roads, bridges, and public buildings had to be made. The year 1887-88 was remarkable for the number of railway schemes begun or completed. The Jetalsar-Veraval extension, 66½ miles, of the Bhavnagar-Gondal line was finished at the cost of the *Junagad* State; another extension of the same line for 69 miles from Dorabji to Porbandar was commenced. The cost estimated at Rx. 364,000 is to be divided between *Gondal*

and

and *Porbandar*; a third project for the extension of the *Morvi* line, a distance of 26 miles from *Vankaneer* to *Rajkot*, was also sanctioned. Its cost, Rx. 61,480, will be paid by *Bhavnagar*. Meanwhile the existing railways in the *Kathiawar* peninsula have been successfully managed. The *Bhavnagar-Gondal* line yielded a net revenue of Rx. 44,210, or 4·46 per cent. on its capital outlay; and the *Morvi* line in its first year of working returned 1½ per cent. on its capital outlay of 11 lakhs. The only important State of *Kathiawar* which is in financial difficulties is *Navanagar*, which has a State debt of 18 lakhs; but as there was a considerable surplus in 1887-88, there is no cause for anxiety. The little State of *Dhrol* is also in debt to Government, but is extricating itself by the exercise of strict economy. The finances of *Vankaneer*, which is the only large State besides *Porbandar* under Agency management, are improving rapidly. The *Rajasthanik* Court for the trial of cases in which different States, or the subjects of different States are concerned, continues its effective work. Suits show a tendency to increase rather than the reverse, and notwithstanding increasing efforts on the part of the Court there are at present as much as three years' work in hand.

Cambay continues to be well governed. The capital has been much improved with its new schools, hospitals, markets, and public gardens. Its chief requirements now are a good supply of sweet water which is not easy to get, and better communications with the railway. The Excise administration of the State was taken over by the British Government at the beginning of 1888 in accordance with an arrangement by which *Cambay* receives compensation of Rx. 3,500 a year. The State is gradually clearing off the debt which it owes to Government. The introduction of free trade has brought an increase of five per cent. in the first year to the trade of the *Cambay* ports.

Rajpipla with a revenue of Rx. 95,100, is the single first-class State of the *Rewa Kantha* Agency. At the beginning of the year it was under the joint administration of the Raja and a political officer, but the conduct of the Raja rendered it quite necessary in the interests of good government to exclude him from all powers, and to substitute the rule of a single administrator. This was done in October 1887, and the Raja was relegated to a private position with an allowance of a lakh of rupees a year. Under the new régime the work of reform was pressed forward, the task laid before the Administrator being, not the introduction of a British system, but the improvement of the native system. Much has been done to secure the better collection of the land revenues, the requisite conservation of the forests, which cover so large an area in the State and have hitherto been shamelessly mismanaged, and the assimilation of the *Abkari* system with that prevailing in the neighbouring districts with a view to the prevention of smuggling. An unsatisfactory feature of the year's administration was a very large increase of crime, committed for the most part by *Bhils* and *Dankars*. It was perhaps due to the unfavourable season and the rise in the prices of food grains. The year closed with a State balance of Rx. 15,100. Of the other Chiefs of the Agency, those of *Lunavada* and *Sunth* are regarded as the best rulers. There are no considerable States of which the finances are now embarrassed. The introduction of the British system of Excise administration in most of the States of the Agency including *Rajpipla* has caused a considerable rise in the price and consequent decrease in the consumption of liquor. Education shows some decline in *Rajpipla*, but progress in the other States, and especially among the *Bhils*, who seem better inclined towards it.

New *Abkari* arrangements were made with the state of *Dharampur*. This State, as well as *Bansda* and *Sachin*, are thus brought into the *Abkari* league, adopting more or less the British system. Difficulty was caused in the border districts of *Baroda* in which the British system did not prevail, and from which there is consequently a smuggled import of cheap liquor. Half the criminal offences in *Dharampur* and *Bansda* are committed against the *Abkari* laws. There is little serious crime. Police administration is defective. *Sachin*, the Raja of which has resigned his duties, continues to be administered by a Native officer under the supervision of the Political Agent. Its finances are satisfactory. So are those of *Bansda*, the Raja of which appears to be governing well. The chief of *Dharampur* incurred considerable debt during the year 1887-88 in order to meet the expenses of his daughter's marriage.

NATIVE STATES.

marriage. The year was not a prosperous one for the people of these States; education did not progress.

The *Khandesh* Political Agency consists of the small state of *Surgana*, and six *Mevas* estates, which are scheduled British districts, and 15 *Dangs* estates of inconsiderable size. These are wild, poor, and scantily peopled; and their rulers are little disposed towards civilized methods of government. There is nothing special to report concerning them in 1887-88, beyond the fact that the management of their *abkari* arrangements was taken over by the Bombay Government. One result was that a number of liquor shops were closed, the price of liquor was enhanced, and there was less consumption, at least of duty-paid liquor. The chiefs receive compensation for the loss of their excise revenue.

The Muhammadan State of *Janjira*, also saw the introduction of new *abkari* arrangements sanctioned by the Bombay Government. This State is in the sound position of having a yearly surplus and a considerable balance; its people moreover enjoyed a prosperous year in 1887-88. The Nawaab is an advanced ruler; and characterised his administration in the year under review by inaugurating a policy of local self-government constituting urban and rural boards for the management of local affairs.

The State of *Savantvadi* continued to be administered by the British Government, the Sir Desai being still unfit to rule. One reform in the administration was effected by the institution of a Standing Legislative Council for the State. The revenue of the State is well in excess of the expenditure, and the general condition of the people, excepting that of the old Sardar families, seems to be prosperous. Education extends in a very satisfactory manner.

Of the five *Satara Feudatories* the only fact worthy of notice is that the Jaghir of *Bhor* was transferred to the charge of the collector of *Roona*, and those of *Juth* and *Daplapur* to the charge of the collector of *Bijapur*, while *Phaltan* and *Aundh* only were left under the supervision of the *Satara* collectorate. The change is advantageous to the States affected.

Kolhapur and three of its four feudatories have chiefs still in their minority. Their administration is meanwhile conducted by a native council, consisting of the Dewan, chief justice, and chief revenue officer of *Kolhapur*; their management has hitherto been decidedly successful. The chief State and its feudatories have together a balance of Rx. 386,969, of which Rx. 301,139 belongs to *Kolhapur*. While keeping within their income of nearly 30 lakhs, they spent $4\frac{1}{2}$ lakhs on public works. *Kolhapur* is already famous for its public buildings and for its roads, which are at least 340 miles in length. The ordinary public works grant is nevertheless to be increased; and nearly 23 lakhs are to be spent on the *Kolhapur* line, 28 miles in length, to connect *Kolhapur* with the Southern Mahratta railway at *Miraj*. Work on this line was commenced in the year under review. The *Kolhapur* municipality is considered to be doing its work well. It has provided a plentiful supply of water, and is now executing a drainage scheme for the town. There are other municipalities of little importance in the States; of these, four began their existence in the year under review. The harvest of the year was good; crime stationary; and civil justice more rapidly administered.

Sangli, with an income of Rx. 109,710, is much more important than the other seven Southern Mahratta States. It had been governed since 1874 by a joint administration, but in December 1887 the Chief was re-invested with full powers. During the years between 1874 and 1887, 12 lakhs of debt had been paid off; a balance of Rx. 83,467 accumulated, the revenue increased by three lakhs; reforms in all branches, including a survey system for the land revenue, introduced; schools and dispensaries started, and progress made all along the line. *Miraj Junior* and *Ramdurg* continued to be under Agency management. The revenues of all the Southern Mahratta States except the *Senior* and *Junior Karandvad* States were flourishing. Their expenditure, especially on the part of the two *Miraj* States, on public works is satisfactory.

The only other State of importance is that of *Khairpur* in *Sind*, which is ruled in the patriarchal style by the Mir, who is 75 years old and still fond of sport, and his son. The justice of the *Khairpur* courts is summary, cheap, and swift. Education is very backward. Unfortunately the expenditure of the State is in excess of the income, and debt is steadily accumulating.

The country of Baluchistan and the tracts with which the Governor General's Agent in Baluchistan has relations have an area of about 130,000 square miles, lying between Persia and Afghanistan and the British Indian Provinces of the Punjab and Sind. The area may be divided, for the purposes of the Agency, into five sections, viz. : (1) that part of Baluchistan which is of the nature of a confederation of chiefs administered by or under the suzerainty of the Khan of Kalat ; (2) the districts of Quetta and the Bolan, which, being part of the dominions of the Khan, are administered on his behalf by the British Government ; (3) the "Assigned Districts," formerly belonging to Afghanistan, which are directly under British administration, and include Pishin, Sibi, Harnai, Thal Chotali, and Shorapur. These districts were, in November 1887, constituted British territory, and placed under the Chief Commissioner of British Baluchistan. Then (4) there are the Afghan tribes between the Amir's territory and India ; and (5) the Baluch tribes, known as Marris and Bugtis. No report of the administration of this Agency has been received since the compilation of last year's statement. The relations of the Agency with the tribes under its control were satisfactory.

FRONTIER RELATIONS AND FRONTIER TRIBES.

Baluchistan.

The subsequent expedition against the Black Mountain tribes reflects importance on the events of the *Hazara* frontier in 1887-88. The principal cause of trouble in this district has been Hashim Ali Khan, the hereditary chief of the Isazai branch of the Yusafzai Pathans. He has for a long time defied the British Government, and constantly violated its territory, intriguing the while with the Khan of Agror, who is within the British frontier. Angered by the arrest in Agror of one of his men, who had been guilty of more than one murder in British territory, Hashim Ali sent a band of his followers to attack the British village of Odigaon. Two villagers were killed and two carried away as hostages. These Hashim Ali refused to give up, and the Hassanzais declined to coerce their Chief. Further raids were threatened. Matters grew worse, and it became evident that the pacific system maintained on the Hazara frontier since the ineffectual Black Mountain Campaign of 1868, and consisting of vain negotiations, futile blockades, and lenient settlements, would have to be superseded by strong measures if the British prestige was to be retained and the lives and property of British subjects were to be secured. The necessity of a military expedition had already been urged upon the Government of India when a still more flagrant breach of the peace was committed by the Akazais, who attacked and killed two British officers in British territory. The expedition against the tribes was thereupon ordered. Papers relating to this expedition were presented to Parliament in 1888. As regards the other tribes in this district, the *Akazais* continued to be blockaded during the year as they still refused compensation for offences committed in 1884 ; and the *Tikriwals* were guilty of further raids. The *Chiggarzais* were not actively hostile.

Punjab Border.

On the *Kohat* border affairs were very unsettled. The offences committed by the Rabiya Khel, Mishti, Shekhan, Akkel, Ali Khel, and Mammuzai tribes increased in number from 97 to 164 during the year under review. Strong measures are not yet in contemplation, but it is doubtful whether the raids now so frequent can be stopped by merely political management.

The *Dera Ghazi Khan* and the *Bannu* borders were peaceful. The Mazaris under Nawab Imam Baksh Khan behaved particularly well. The Nawab has deserved the decoration of K.C.I.E., which he received during the year under review. An expedition, however, for the survey of the further end of the Gomul pass was frustrated by the Makind tribe which had been ordered to furnish escorts.

In the *Kurram* Valley there was general anarchy ; a conference was held in 1888 between a British representative and a representative of the Amir of Afghanistan, with the object of bringing about a settlement, but without any success. Afghanistan appears to harbour designs against the tribes of this valley as well as against the *Swatis*. The Mian Gul of Swat died in September 1887.

There is nothing special to report of events in Nipal during 1887-88. The relations of the British Government with that State continued to be friendly.

Nipal.

In June 1887, the Maharaja of Sikkim was invited to meet the Lieutenant Governor of Bengal with the object of inducing him to modify his relations with

Sikkim and Tibet.

FRONTIER RELATIONS.

with Tibet, and to return to his previous friendly policy towards the Government of India. The proposed interview was declined, on the plea that the Governments of China and Tibet forbid it. A British officer was sent to Gantok to see the Maharaja, but failed to find him. Finally, in December 1887, an ultimatum was despatched to the Commander of the Tibetan forces occupying Lingtu in Sikkim territory. The ultimatum not having been acceded to, the stockade at Jayluk was carried, and Lingtu taken before the end of March 1888. Subsequent events will be reported in next year's Statement.

Bhutan.

There is nothing to report regarding the affairs of Bhutan except that the annual subsidy to that State was paid as usual. There were few disputes, and they unimportant, with the Bhutia tribes on the border. It was noticed that there were fewer Tibetans among the traders at the border markets.

Assam and
Bengal Frontier.

The most noticeable event of the year on the Assam border was the raising of the blockades maintained against the *Kapaschor Akas* and *Chulihata Mishmis*. The *Kapaschor Aka* chiefs came in, and submitted to the terms imposed after the abortive expedition of 1883. The terms originally demanded of the *Mishmis* in 1884 were modified, on the ground that the murderers they had been required to surrender were out of their power. They were accordingly required to pay a fine of Rs. 2,000. This they have done, and the blockade has been raised. The most serious raid in these regions, was one made by the *Hill Dafflas* on a settlement of refugee *Dafflas* situated just outside British jurisdiction. It was decided not to interfere in the feud, except in so far as to negotiate for the release of the persons carried off in the raid, and for the future to prevent, as far as possible, the growth of similar settlements so close to the Inner Line, as it is called, of our influence. Another raid was committed by a body of *Namsangia Nagas* on a village settlement of their fellow traders within British territory. The offence was punished by the levy of a fine and the temporary exclusion of the offenders from the plains. There was no trouble with the *Mis, Digaru, Mishmis, Nagas* on the Sibsagar frontier, *Khamptis* or *Singpos*. Some punitive visits were paid to the *Ao* or *Hutigoria Nagas* and to the *Semas*. The *Sema* country was thus for the first time brought under British influence. The *Eastern Angamis* gave no trouble.

The *Chittagong Hill Tracts* were disturbed. The raids made by tribes beyond the frontier were more serious than any since 1872. In one of these a British officer on survey duty and his party were attacked and killed by *Howsata Shendoos*. A punitive expedition was undertaken after the close of the year. Meanwhile the force on the border was strengthened. The duties of the frontier police were heavy, but were satisfactorily carried out. The opening of the *Demagri Bazaar* to the tribes of *Northern Howlongs* led to a great development of trade.

Explorations were continued in the region between Assam and Burma; two possible routes from Assam to Hukong were discovered, though the exploring party did not actually reach the Hukong Valley. The Hukong chiefs regarded the contemplated visits with much disfavour; the *Trans-Patkoi Nagas*, on the other hand, were better disposed.

Manipur.

The Maharaja, Sur Chandra Singh, was installed in the capital of Manipur in September 1887. One revolt, recorded in last year's Report, had already been quelled. Two other formidable attempts were made to overthrow the new Maharaja during 1887-88. One, headed by the principal judicial officer in the State, was crushed by the Maharaja's troops; the other, which was the work of Manipur exiles, was defeated by bodies of British troops and frontier police. A present of two guns, ammunition, and 200 Enfields, was subsequently made to the Maharaja. The *Kubo Valley* was garrisoned by a force of military police, who took the place of the regular troops.

Shan States.

The affairs of the Upper Burma frontier and of the dependent Shan States are discussed in the following chapter.

Aden.

Friendly relations continued to be maintained between the Aden authorities and the neighbouring tribes, the *Subaihis* alone excepted. Between the tribes themselves some quarrels occurred, in some of which the Resident successfully intervened in the cause of peace. There were no encroachments by the Turks on the Arab tribes within the sphere of British influence. The year was a prosperous one for the settlement. The trade of the port again increased.

increased, from Rx. 4,745,661 to Rx. 5,169,626, the increase being shared equally by the imports and exports. The inland trade was also more active; crime was less by nearly 25 per cent. The municipality flourished, and the finances were satisfactory.

The British Protectorate on the Somali coast, which extends from Ras Jibuti to Bandar Ziada, is administered by a political agent and consul for the Somali coast, who is subordinate to the Resident at Aden. Thanks to the zeal and tact of the authorities, who carefully abstained from interference in intertribal disputes, relations with the neighbouring tribes were, with only one exception, friendly and satisfactory. The caravan routes were kept open without serious interruption; trade consequently expanded. The following are the figures for the last two years.

PORTS.	IMPORTS.		EXPORTS.		TOTAL.	
	1886-87.	1887-88.	1886-87.	1887-88.	1886-87.	1887-88.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Berbera - - - -	132,827	133,325	113,385	163,596	246,212	346,921
Bulhar - - - -	34,151	26,987	27,890	38,108	62,040	65,095
Zaila - - - -	81,897	110,041	46,182	106,119	128,080	215,160
Other Ports - - -	not stated	12,569	not stated	11,647	not stated	24,215
TOTAL - - - -	248,875	332,921	187,457	318,470	436,332	651,391

Karant was opened as a customs port in February 1887, and Ainterad was closed in January 1888. The revenue of the protectorate, which is almost wholly derived from customs, increased from Rx. 13,439 to Rx. 18,794; omitting certain military and other charges, which are set against Aden revenues, the cost of administering the protectorate is given at Rx. 11,709. Fortified positions were constructed during the year at Berbera, Bulhar, and Zaila.

The Sultan of Muscat died shortly after the close of the year under review. The last year of his reign was troubled by a threatened combination of several rebel sheikhs and the whole of the Hinawee tribes to exact terms from him by harrassing his State at a number of different points. Seyyid Ibrahim bin Kais began the movement by surprising the fort of Soweik, on the Batineh coast. Upon this, the Sultan, having appealed to the British Government for aid, a man of war was despatched to Soweik to demand its unconditional surrender by the rebels. After some demur, Seyyid Ibrahim gave way, and evacuated the place. In return for his acquiescence, the Sultan was persuaded to restore him his subsidy which had been withheld for some months for acts of disloyalty. This speedy settlement of the matter had a very beneficial result, and prevented the scheme for a general Hinawee rising from being carried out. The Sultan of Zanzibar, brother of Seyyid Torki, the Muscat Sultan, visited the Muscat coast for the benefit his health in 1887-88, but returned to Zanzibar only to die.

The Persian Gulf coast was more disturbed than usual in the year under review. Only in Persia, Beluchistan, and to some extent in Oman were affairs generally quiet. A second bad harvest, high prices, rising round Bushire to almost famine rates, and restricted trade, made the year anything but prosperous. However, the prospect was brighter at the close of the year, and the scarcity was passing away. Piracies in El Kateef waters increased in 1887-88, and traders at El Bidaa were plundered. Some serious fighting took place in the Shiraz districts. On the Oman pirate coast, there was more peace than usual among the "Trucial chiefs." There were attempts to extend Turkish influence in these regions. Mohammed bin Rashid, an acknowledged vassal of Turkey, interfered to defeat a revolt in Nejd and to secure the re-establishment of Abdullah bin Feysal as Amir. Shaikh Jassim of El Bidaa, also showed some disposition to attach himself to the Turkish power. He encouraged the pirates, who, issuing from Turkish waters, made depredations even more serious than usual on the El Kateef coast. The chief of Bahrein was thereupon urged by the British authorities to bring pressure on Shaikh Jassim. An embargo was accordingly laid upon some of the Shaikh's property, which happened to be in Bahrein, and the property was only given up on payment of a fine of Rs. 6,390. This measure

NATIVE STATES.

Somali Coast.

Persian Gulf.

NATIVE STATES.

had also the effect of stopping the piracies for the time. There was an attempt made in the year under review to start El Hasa as a commercial port. It is doubtful whether it will succeed. The Persian flag was hoisted on the island of Sirri, notwithstanding the protest of the Jowasimi Shaikhs of Lingah that the island was an Arab possession. A change was caused in the Government of the maritime provinces of Persia, by the Zil-es-Sultan's deprivation of all his governments excepting that of Ispahan.

SLAVE TRADE.

Only one slave ship was captured off Muscat, and none in the Persian Gulf. It is believed, nevertheless, that a few slavers find their way to the Oman Coast. Most of them, however, land their cargoes far to the south-west where no ships patrol; the slaves are then marched long distances over land.

ARMY.

ARMY.

During the year 1887-88 six garrison batteries of Royal Artillery were added to the Indian Establishment. This completed the increase to the Army in India which was sanctioned in 1885.

The sanctioned establishment in 1887-88 was as follows:

British troops	-	-	-	-	-	72,440
Miscellaneous officers	-	-	-	-	-	1,112
Native troops	Bengal	-	-	-	-	83,882
	Madras	-	-	-	-	32,649
	Bombay	-	-	-	-	28,787
						145,318
TOTAL						218,870

The actual strength of the Army on the 1st April 1888, was as follows:—

BENGAL.						
BRITISH:						
Cavalry	-	-	6 regiments	3,754		
Artillery	-	-	52 batteries	7,031		
Infantry	-	-	34 battalions	33,626		
NATIVE:					44,411	
Cavalry	-	-	19 regiments	11,722		
Artillery	-	-	2 batteries	450		
Infantry	-	-	52 battalions	46,397		
Punjab Frontier Force	-	-	-	14,759		
Other corps (including Hyderabad Contingent)	-	-	-	13,229		
MADRAS.					86,957	
BRITISH:						131,368
Cavalry	-	-	2 regiments	1,231		
Artillery	-	-	20 batteries	2,414		
Infantry	-	-	11 battalions	10,876		
NATIVE:					14,521	
Cavalry	-	-	4 regiments	1,791		
Infantry	-	-	32 "	26,456		
Other corps (including Civil Corps)	-	-	-	6,267		
BOMBAY.					34,514	
BRITISH:						49,035
Cavalry	-	-	1 regiment	554		
Artillery	-	-	20 batteries	2,802		
Infantry	-	-	8 battalions	7,622		
NATIVE:					10,978	
Cavalry	-	-	7 regiments	4,389		
Artillery	-	-	2 batteries	200		
Infantry	-	-	26 battalions	21,792		
Other corps	-	-	-	995		
					37,276	
						38,254
TOTAL						218,657

The

The number of troops in Lower Burmah on the 1st April 1888, was :

ARMY.

British	1,931
Native	2,513
	<u>4,444</u>

These were drawn from the Madras Presidency.

In Upper Burmah the numbers present on the same date were :

From BENGAL.		
British	999	
Native	4,450	5,449
From MADRAS.		
British	1,618	
Native	5,343	6,961
From BOMBAY.		
Native	2,720	2,720
TOTAL		15,130
TOTAL for all Burma		19,574

The net Expenditure on the Army in 1887-88, was :

	Rx.
India	14,103,208
England	5,253,911
	<u>19,357,119</u>

The number of Volunteers in the whole of India on the 1st April 1888, was as under :

Indian Force.

	Enrolled.	Efficient.
Cavalry, 8 corps, aggregating 21 troops	891	779
Artillery, 6 corps, aggregating 7 batteries	585	441
Mounted Rifles, 8 corps, aggregating 11 companies	524	307
Infantry, 50 corps, aggregating 266 companies	16,388	13,931
TOTAL	18,388	15,458

During the year the formation of Reserves of Volunteers in Bengal, Bombay, Calcutta, Burma, and also in connection with the Indian railways was sanctioned by the Government of India, but no definite orders as to the constitution of the Reserve or the conditions of appointment to it were issued. It is to be armed with Martini-Henry Rifles, 50 rounds of ball ammunition per man would be issued annually free of charge, and a capita- tion grant of Rs: 10 per man will be allowed for each volunteer reserve man who renders himself efficient in musketry according to a test to be deter- mined in consultation with the Commander-in-chief in India.

MILITARY OPERATIONS.

MILITARY
OPERATIONS.
Burmah.

Sikkim Frontier.

The Military operations in Burmah during the year 1887-88, were confined to encounters with hill tribes on the border, and with insurgents or dacoits, and are described in some detail in the following chapter on Upper Burma affairs.

Early in 1888 a small force was concentrated on the Sikkim Frontier, the object being to expel the Thibetans from the Fort of Lingtu, which they had forcibly occupied, and thus to vindicate the treaty rights of the Government of India in Sikkim, and to free the road to the Jelep Pass. The operations were successful, the fort being captured on the 20th March 1888.

XVII.

AFFAIRS IN UPPER BURMA.

THE Statement for last year brought the account of matters in Upper Burma to the spring of 1888, and the present section will continue the narrative down to March 1889.

During the past season the officials of the Chinese Empire have maintained their friendly attitude on the northern and north-western border of Upper Burma, though a few Chinese outlaws have joined disturbers of the peace in the Bhamo district and in the northern Shan States. A question has arisen concerning the claims of Siam to four petty Southern Shan chiefships on the left of the Salween river; but this will be amicably adjusted. The only expeditions on which considerable military force was required were in wild tracts outside the borders of Burma proper, namely:—

- (a.) The two expeditions through the Southern and the Northern Shan States;
- (b.) The expedition into Karennee;
- (c.) The operations in the Mogoung district;
- (d.) The expedition against Kachin rebels in the Bhamo district;
- (e.) The expedition against the Chin tribes.

The two expeditions in the Shan States occupied several months. The political officers, accompanied by adequate escorts, visited and received the submission of all the important and most of the lesser Shan States on the right bank (to the west) of the Salween river; settled the tribute which each State was to pay; handed *sanads* (patents of chiefship) in the name of the British Government to each chief; forbade and prevented the internecine wars which had for years devastated the Shan States; and adjudicated many old quarrels between neighbouring States and between candidates for chiefships. The British representatives were well received everywhere, and the Shans fraternised with the Indian soldiers of the escort.

Scarcely a shot was fired during the whole time; though afterwards disturbance arose in a Shan State to the north of the Ruby Mines district, where a Prince of the ex-royal family had raised his standard. Many of the Shan States were found to have suffered greatly from the wars and troubles of 1879-87; land had fallen out of cultivation; prosperous towns had been reduced to one-tenth of their former size; and the people welcomed a strong power that could enforce peace. The tributes were fixed at comparatively low figures for the first few years. There are now two posts with two outposts in the whole Shan country. The old caravan route from China through the Shan States was traced as far as the Salween; this route was abandoned in favour of Bhamo some years ago, but will now recover. As far as the Salween the route is easier for a railway to Western China than the Bhamo line; the only serious obstacle is the ascent out of the Irrawaddy plain on to the Shan plateau. The water parting between the Irrawaddy and the Salween was found to be at the top of an easy slope not more than 20 miles from the latter river.

The expedition into Karennee was undertaken because the Chief would not desist from attacking neighbouring Shan States, and would in no way acknowledge British supremacy or accept friendly overtures. The Karennies, or Red Karens, dwell in a mountain country, and were famed for their courage; after one small action their resistance ceased. The chief fled, and his nephew was placed on the throne; a fine of money and weapons was levied and has been for the most part paid; no trouble has since occurred; and no British force is quartered in the country.

The Mogoung district, whence come large exports of jade-stone, rubber, and teak is dominated for the most part by Chin tribes; the tract was never

AFFAIRS IN UPPER
BURMA.

reduced and was hardly occupied by the Burmians. The Chins consist of brave highland clans, allied to if not identical with the Singphos of the Patkoi range in Assam, and through their territory lies a route, traversed 50 years ago by Dr. Griffith, from the Brahmapootra valley to the Upper Irrawaddy. Mogoung and certain other places in the tract are held by posts of military police; a force penetrated to the jade mines; some desultory fighting occurred; British influence is gradually extending, but the wilds in that direction are not yet pacified.

The expeditions against Chins in the Bhamo district were undertaken to put down raiders on British villages and on caravans. One chief, whose fastness was on a ridge about 40 miles from Bhamo, and who had been unsuccessfully attacked in 1886, was reduced to complete submission. Some progress has been made in pacifying the Chins of that quarter, and in relieving the anxieties of Bhamo traders. The caravan route from Bhamo to Taliu, in the Chinese province of Yunnan, was temporarily closed in consequence of troubles among the tribes and chiefs between Burma and China; but disturbance of this kind will be of less importance when the route through the Shan States is fairly opened.

The expedition against the Chin tribes was a more serious affair. These tribes are the congeners of the Kukis and Lushais, who even at the present time harry British villages in the eastern frontier of Bengal; they occupy the hilly country which stretches nearly 200 miles from the Chittagong border on the west, to the Chindwin river on the east, and about the same distance north and south from Manipur to the bank of the Irrawaddy plain. The hills reach to 7,000 feet in height, the valleys are deep and narrow, and there is, so far as the region has been explored, no level country. The Chin tribes make their homes during the rainy season on the hill ridges; and in the dry weather they have from time immemorial raided on the Irrawaddy and Chindwin plains, burning villages, killing men and children, and carrying off the women captives. In Burman times little was done to check the Chin raids; their ruthless deeds were much dreaded by the plainsmen; and broad tracts like the Tamu valley were practically depopulated by their incursions.

The Chins continued to raid after British power had been established. They repelled all friendly advances by British officers, and they gave asylum and support to Burmese pretenders who made the Chin hills a starting ground for their attacks on British districts. An expedition was therefore sent into the Chin country, more especially against certain tribes that had been prominent in their hostility. The physical features of the country, the forest, and the lack of even footpaths made marching difficult; but in the end, considerable loss was inflicted on the Chins; two of the principal tribes made submission, surrendered their captives and plunder. A post has been established on a high and commanding site; and a good bridle road, passable in all weathers, is being carried from the plains to this post as rapidly as possible. An experienced civil officer, who has already had some success with the tribes, is stationed at this post, whence he will establish relations with the Chins; and eventually the road will be carried, right through the heart of the Chin country, to the Chittagong border. But the pacification of these people, who after 100 years' British rule still raid on the Bengal border, must take time.

Pacification of the
country.

In the interior of Upper Burma the work of settling the country has proceeded. In the 17 districts of Upper Burma proper, not including the Shan States, the only tracts which are still more or less disturbed are parts of Bhamo and Mogoung on the Kachin border; parts of Pokoko and the Chindwin on the Chin border; the rugged country round Popa Hill in the Myingyan district; and parts of the Minbu and Magwe districts. The only notable leaders of rebels or dacoits, that have not either surrendered or disappeared, are Oktama and his two lieutenants in Minbu; Yan Nyun and Bo Cho in the Myingyan district; and Bo To in the islands of the Irrawaddy north of Mandalay. The only pretenders to the Burma throne now at large with any following are Yan Naing, a scion of the ex-royal house, who is troubling Momeik, a small state in the Shan hills to the north of the Ruby Mines; and a runaway vaccinator from Lower Burma, who set up as a prince, harried parts of Minbu and Pokoko, and has found asylum in the Chin hills. In the interior

of the country, away from the Kachin and Chin hills; the only tracts vexed by large bands of guerillas or dacoits during the present year, have been parts of Myingyan, Minbu, and Magwe. Nowhere else are bands of more than 30 or 40 armed men now heard of: dacoities and robberies occur in all districts, but they are growing fewer and of less serious type than before.

AFFAIRS IN
UPPER BURMA.

In the year 1887-88 the military garrison of Upper Burma consisted of 26,400 men of all ranks, of whom 4,300 were Europeans; and more than 150 cantonments and posts were at one time occupied by troops. It has been found possible in the present year to reduce the military garrison of Upper Burma to about 12,000 men, distributed in 30 cantonments and outposts; to unite all troops in Upper and Lower Burma under one General, and to reduce considerably the complement of staff officers. Most of the work previously done by regular troops in the interior, and much of the frontier work have been undertaken by the police, of whom 17,000 have been enrolled. Out of these about 14,000 belong to the best fighting races of India, are armed and drilled like regular troops, are distributed in battalions and companies, and are commanded by European officers. The remainder of the police are Burmans, Shans, and Karens. From 10 to 20 per cent. of the military police have ponies, and can operate as mounted infantry. Barracks, hospitals, medical attendance, and commissariat arrangements are provided for the police force, which cost Rs. 732,000 in 1888-89, and is expected to cost Rs. 868,000 in the coming year. The police, especially the Goorkhas, have on the whole behaved very well on the expeditions or in encounters with dacoits, and in posts or in contact with the people. At present no post is garrisoned by less than 40 men, so as to admit of adequate patrols and detachments, while the fortified posts are securely held by the men left behind. The Burman police have done fairly well in some respects; but cannot be trusted to resist a superior number of dacoits or to do sentry work faithfully.

Military police.

Under the village regulation mentioned in last year's Statement effort is being made to strengthen and energise the indigenous village officers, and to secure their co-operation on the side of order. In some districts the people are now actively supporting the authorities in keeping the peace.

The judicial system in Upper Burma remains as constituted by the Upper Burma Laws Act. The criminal law and procedure is the same as in other parts of India, except that the District Officer (Deputy Commissioner) has powers of Sessions Judge, and the Commissioner has powers of a High Court within his division. The number of petty criminal cases is small; out of 13,518 persons under trial on criminal charges 56 per cent. were convicted; many of the charges were for serious offences, such as dacoity. In 730 cases appeals were preferred to the High Courts against magistrates' decisions, which were upheld in 71 per cent. of the cases; out of 50 sentences of death passed during the year, 37 were confirmed. In Mandalay only was there much civil litigation; elsewhere such civil disputes as occurred were settled chiefly by arbitration. Central prisons have been built at Mandalay and at Myingyan, district jails have been established at three districts, and lock-ups suffice for the present elsewhere.

Judicial
Administration.

Municipalities have been established at Mandalay and at 15 other towns; but at Mandalay only is the municipal system in full working order.

The main source of revenue is still the capitation tax or house tax at the average rate of 10 rupees per house. The total tax due from each village is apportioned between the villagers according to their means and circumstance by a committee of village elders. Inquiries are being made as to the State or royal lands, which used under Burmese rule to pay land revenue; there have been attempts to appropriate some of these lands as private property during the recent troubles. An excise system has after full inquiry been introduced, which is expected "to have the least possible effect in increasing the consumption of opium and intoxicating liquors, and at the same time to secure to the Treasury a fair income from this source."

Revenue
Administration.

A Forest Department has been organised, which is engaged in exploring the forests and controlling the operations of the lessees who have rights of felling in the different forests for terms of years. The terms under which the Bombay-Burma Corporation and other forest lessees are to enjoy the

AFFAIRS IN
UPPER BURMA.

leases they had obtained from the late King's Government have, after much negotiation, been satisfactorily settled. The survey officers and the engineer officers accompanying expeditions have effected triangulation over 23,500 square miles, and topographical surveys of 22,000 square miles. A large scale survey of the town of Mandalay has also been completed.

Public Works.

The railway from Toungoo (the then terminus of the Sittang Valley line), for which a preliminary survey was sanctioned in November 1886, was opened for traffic in March 1889. The cost per mile was Rx. 9,800. The construction was begun when that part of the country was greatly disturbed; survey parties and working parties were carefully guarded; and no successful attacks were made upon the labourers or the work. The construction gave employment and wages to a large number of Burmese, at a time when the labouring classes would have been otherwise in great straits. Since the railway was opened the districts through which it runs have been the quietest in Upper Burma. The traffic on the line is already considerable. Large outlay has been incurred and still continues upon barracks, hospitals, roads, and necessary civil buildings; the best way of quieting the border highlands will be to pierce them with roads as funds are available. In all, 144 miles of road have been bridged and completed, and 452 more miles were in various stages of progress; while hundreds of miles of path and track have been cut and cleared of jungle by civil officers. Valuable work has been done in repairing irrigation works in the Kyaukse, Shwebo, Mandalay and Minbu districts; and plans have been prepared for a thorough revision of the Kyaukse canal system.

Finance.

The revenues of Upper Burma have increased rapidly as order was restored. The total revenues of the province were Rx. 222,000 in the year 1886-87; Rx. 501,000 in 1887-88; they are expected to be Rx. 650,000 for 1888-89; and they are taken at Rx. 755,000 in the estimates of 1889-90, exclusive of the railway earnings. The net charge on the Indian Treasury on account of Upper Burma, inclusive of the newly opened railway, has been or will be about:—

Rx.	
2,068,000	- - - - for the year 1886-87
2,727,000	- - - - for the year 1887-88
1,650,000	- - - - as estimated for 1888-89
1,625,000	- - - - as estimated for 1889-90

The details of the estimate for the current year are as follows:—

REVENUES.		EXPENDITURE.	
	Rx.		Rx.
State railways - - - -	115,000	Police - - - - -	868,200
Other revenues - - - -	755,200	Other civil expenditure - -	366,400
		Railway, including interest on capital cost.	192,800
		Military works - - - -	150,000
		Civil works - - - -	208,000
		Irrigation - - - -	20,000
		Army special expenditure - -	600,000
TOTAL - - -	870,200	TOTAL - - -	2,495,500

The Chief Commissioner at the conclusion of a memorandum upon the condition of Upper Burma in March 1889, said—

“The Shan States have for the most part been free from disturbance. Perfect order has been maintained without difficulty in the whole of the Southern and Eastern States. In the north, as already explained, Momeik has been disturbed, and Majnglon has continued to afford a refuge for dacoits. There was also in January last a disturbance, not of a very serious nature, in Southern Theinni. The Sawbwa of Southern Theinni, who seems to be scarcely equal to the duties of his position, was driven out by a party of insurgents.”

insurgents; but the rising was at once suppressed by the Superintendent of the Northern Shan States with a handful of men, and there has been no recurrence of disorder. In the south, the expedition to Eastern Karenni was successfully carried out, and Mr. Hildebrand succeeded in effecting what promises to be an entirely satisfactory settlement in that State. On his return, he arranged some boundary disputes, not of a very serious nature, between the Western Karenni Chief Pobyá and the Sawbwa of Mokyè.

"From the preceding paragraphs it will be seen that the greater part of Upper Burma is settling down in a very satisfactory manner. In Sagaing, Kyaukse, and Minbu conspicuously good results have been attained. In other districts less has been done of late because less remained to do. Except in Magwe and part of Myingyan, the only disturbances of any consequence have occurred on the outskirts of the province in places where we had neither troops nor police, and have been caused by persons who have been driven out of their former haunts in the plains. The occurrence of these disturbances on the outskirts is an indication of the permanent nature of the settlement which has been effected in the interior of the province."



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on 01 February, 2020

